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Desde 1973

# YANGIN & GAZ ALGILAMA SİSTEMLERİ

## 2015 - 2016 ÜRÜN KATALOĞU



Cofem Installers Cofem Guard



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**ÖNCÜ**  
GÜVENLİK SİSTEMLERİ A.Ş.



Değerli kullanıcımız,

**COFEM, S.A.** firması 1973 yılında kurulmuş olup 40 yılı aşkın yangın algılama ve yangın alarm sistemleri tecrübesine sahip olup tüm ürünleri AENOR tarafından verilmiş olan ISO 9001/2008 belgesine sahiptir ve aşağıda gösterileceği üzere yangın sektöründen kalite ve güvenliği sağlamak konusunda oldukça kararlıdır:

- Cofem, diğer tüm yangından korunma donanımı üreticileri ile birlikte bir İspanyol Derneği olan Tecnifuego-Aespi'nin üyesi konumundadır.
- Cofem, CTN23 üyesi olarak (Comité Técnico Normalizador), ulusal seviyedeki yangından korunma standartlarının belirlenmesi ve geliştirilmesi için kendini geliştirmeleri takip etmeye adanmıştır.
- Cofem, zorunlu standartlar ve CE işaretinin Yapı Malzemelerinin Düzenlenmesi standartlarını (Nº 305 / 2011) oluşturan AENOR (Asociación Española de NORmalización), CEN/TC72 ve Avrupa Ajansı'nın temsilciliğini yapmaktadır.

Tüm bu deneyim ve bilgi, COFEM S. A. ürünlerini rekabete uyumlu ürünler olarak sunabilmemizi ve tüm Ulusal ve Avrupa standart ve yönetmeliklerine uygunluğumuz ise Dünya genelinde 40'tan fazla ülkeye ihraç edebilmemizi sağlamaktadır.

Ayrıca bu birikim sayesinde müşterilerimize çok yakın olmakta ve teknik ekipman, tesis ve yönetmelik, vb. oluşumlarını denetleyebilmelerine olanak sağlamaktayız.

Bu sebeple COFEM S. A. tamamıyla güvenilebilecek ve tüm güvenlik ihtiyaçlarınızı karşılayabilecek bir kuruluş konumunda bulunmaktadır.






Her daim hizmetinizde olduğumuzu bildirir, Yangın Algılama Sistemi olarak COFEM'i seçtiğiniz ve sizi memnun etme fırsatını bize sunduğunuz için çok teşekkür ederiz.

Saygılarımızla

*Yangından Koruma Üreticisi*  
**AENOR ISO 9001/2008 Sertifikalı**



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**cofem, s.a.**  
1973



## Akıllı Adreslenebilir Yangın Algılama Sistemi

**ÖNCÜ**  
GÜVENLİK SİSTEMLERİ A.Ş.

## COFEM ALGORITHMIC ADDRESSABLE FIRE DETECTION SYSTEM

The Algorithmic addressable Fire Detection System represents the most modern technology in fire detection and constitutes a natural evolution from the Identifiable Detection System towards equipment that not only is able to identify the element that produces the alarm (sensor or call point), but that also allows for the total configuration of detection parameters (alarm levels, sensibility,...) as well as the adaptation to the environmental conditions and the degree of dust in the sensor.

In the Cofem Algorithmic addressable Detection System, the loop elements (sensors, manual call points, relay modules, masters, analogue sounders and technical signal module) have the property of being auto-identifiable, that is to say, all of them can be installed with no need for prior manual encoding, facilitating enormously the assembly and subsequent modifications to the installation.

The Algorithmic addressable Detection System is based on the measurement and transmission of the instant value of the monitored magnitude (smoke, temperature or monoxide concentration), for their subsequent processing in the control panel, which will consider the alert or standby status of the sensor. Each sensor incorporates a microprocessor responsible for the digitalization of the analogue value read in the sensor, for transmission of this value to the control panel and for identification of the sensor.

The main difference between the conventional and analogical detection systems lies in that for the first the Voltage delivered by the transducer is compared with a predetermined and fixed threshold ( $V_{alarm}$ ), obtaining from that comparison the system in standby or system in alarm status.

In the Algorithmic addressable Detection System, on the contrary, the control panel gathers the readings from each sensor and determines the status thereof according to these readings, any previous readings (history), the pre-programmed parameters and on the decision algorithm, being possible to act on the detection parameters, as well as, for example, the alarm threshold.

Each sensor on the Cofem Algorithmic addressable Detection System transmits its value to the control panel with a regularity of less than 10 seconds.

The following table shows the values of equivalence of the elements connected to analogue control panels and operating limits.

Device Limits per Control Panel										
Reference	Description	Logic Relays	LYON & ZAFIR control panel				C-Lyon Control Panel			
			Loop limit	Element equivalence			Cable section	Loop limit	Element equivalence	Cable section
				Cable length ->	≤ 800 m	≤ 500 m				
A30XHA	Addressable optical-thermal sensor	---	199	1	1	1	99	1		
A30XHAS	Addressable optical sensor	---	199	1	1	1	99	1		
A30XHTA	Addressable thermal sensor	---	199	1	1	1	99	1		
A30XHTCO	Optical-thermal-monoxide Multisensor	---	199	1	1	1	99	1		
PUCAY	Addressable Manual Call Point	---	199	2	1	1	99	1		
MSTAY	Technical signal module	---	99	3	3	2	57	2		
KMAY	Conventional zone master module	---	99	5	3	2	72	2		
MYOA	Relay and technical signal module	1	32	5	3	2	31	2		
MDA1Y	Realy module	1	32	5	3	2	32	2		
MDA2Y	Realy module	2	16	5	3	2	16	2		
KABY	Loop isolator	---	199	1	1	1	99	0		
SIRAY	Addressable sounder	1	32	8/16 <sup>A</sup>	6/12 <sup>B</sup>	4/8 <sup>A</sup>	32	4/8 <sup>A</sup>		
SIRAYL	Addressable sounder with light	1	32	10/20 <sup>A</sup>	8/14 <sup>A</sup>	6/10 <sup>A</sup>	25	6/10 <sup>A</sup>		
SIRAY+BSLC	Addressable sounder with EN 54-23 light	1	19	25/35/40 <sup>B</sup>	16/24/26 <sup>B</sup>	12/20/22 <sup>B</sup>	10	12/20/22 <sup>B</sup>		
Control panel limits:										
LYON control panel			ZAFIR control panel				C-Lyon control panel			
a) 199 elements with 32 logic relays per loop, and b) 20 loops with 199 logic relays			a) 199 elements with 32 logic relays per loop				a) 99 elements with 32 logic relays per loop			
<sup>A</sup> ) Values correspond with the standard/maximum sound intensity of the sounder. <sup>B</sup> ) Value corresponds with the sound-light standard/ sound <b>or</b> light at maximum/ sound <b>and</b> light at maximum, sounder intensity										

**Table I. Limit elements per loop and per fire control panel (Lyon, Zafir and Compact Lyon).**



The Lyon algorithmic addressable Control Panel is EN 54-2 and EN 54-4 standard certified according to the latest CE Directives/Regulation and can successfully overcome difficult environmental conditions, electrical interferences, electromagnetic radiate upsets, vibrations, etc.

The algorithmic addressable Detection System is able to identify the device which produces the alarm or fault (sensor or call point), and allows the total configuration of the detection parameters (alarm levels, sensibility...) as well as the adaptation to the environmental conditions and the degree of dust in the sensor.

In the Cofem algorithmic addressable System, the loop elements (sensors, manual call points, relay modules, masters, analogue sounders and technical signal modules) have the property of being auto-identifiable, that is to say, all of them can be installed with no need for prior manual encoding, facilitating enormously the assembly and subsequent modifications to the installation.

### Features:

- Control panel configurable and expandable up to 8 loops (199 points per loop).
- Expandable up to 20 loops with an additional cabinet.
- All the points are supervised by the control panel, except the loop isolator KABY.
- Capacity for 199 configurable relays per control panel.
- Can hold up to 99 zones per panel.
- Registry with capacity of 4095 events with date and time.
- Delay of supervised sounder output programmable between 0 to 10 minutes, identified as S1.
- Alarm output as free voltage relay not supervised, identified as S2.
- Failure output, delayed and supervised, identified as S3.
- Allowed to connect addressable sounders in the loop.
- Evacuation push-button.
- Backlit LCD display with 4 lines and 40 characters.
- Incorporates multiple languages by default (Spanish, English, French, Portuguese, etc).
- Configurable with the PC-EASY CoNET software.
- Connectable to external keyboard (standard PC-PS2).
- Access to the control panel keyboard introducing a numeric code.
- Allows connection of up to 8 repeaters and/or 8 control panels in network.
- MODBUS (on specific request).
- Contact ID (on specific request).
- Size: 418 x 324 x 150 mm.
- Certified according to EN 54-2 and EN 54-4 and CE mark according to the European Regulation of Construction Products (UE) N°305/2011.

### ESPECIFICACIONES TÉCNICAS

Input Voltage	110/230Vac 50/60Hz	Maximum current per loop	500 mA / 26 to 32V/DC
Output Voltage	21V Nominal	Keyboard connector	PS2 minidin 6
Maximum consumption	155 VA to 230 VAC	Communications port	USB 2.0/1.1 type B or RS232 (depending on version)
Batteries	2 x 12V 7Ah SLA	Environmental conditions	-10°C+50°C 20%-95% RH
Power Fuse	8 A	Size	418 x 324 x 150 mm
Battery Charger	500 mA 27V/DC 20°C	Weight (without batteries)	7,4 Kg
Devices per loop	199	Standard	EN 54 parts 2 and 4
Power Supply	5 A	Fuse S1	2 A auto reset
Fuse S3	1 A	Fuse Output 30V	2 A auto reset
IP Protection	IP 30		



The Zafir Algorithmic addressable Control Panel is EN 54-2 and EN 54-4 according to the latest CE Directives/Regulation.

The new development of Zafir control panel, allow integration of all the functionality of an addressable algorithmic system in a reduced-dimension cabinet with capacity up to 398 detectors in 2 loops.

The control panel is totally compatible with the Lyon system, highlighting that loop elements (sensors, manual call points, relay modules, masters, analogue sounders and technical signal modules) have the property of being auto-identifiable, that is to say, all of them can be installed with no need for prior manual encoding, facilitating enormously the assembly and subsequent modifications to the installation.

### Features:

- Control panel configurable with 1 or 2 loops.
- Loop capability 199 points.
- All the points are supervised by the control panel, except the loop isolator KABY.
- Capacity for 64 configurable relays per control panel.
- Can hold up to 99 zones per panel.
- Registry with capacity of 4095 events with date and time.
- Delay of supervised sounder output programmable between 0 to 10 minutes, identified as S1.
- Alarm output as free voltage relay not supervised, identified as ALARM.
- Failure general output, as free voltage relay not supervised, identified as FAULT.
- Allowed to connect addressable sounders in the loop.
- Evacuation push-button.
- Backlit LCD display with 4 lines and 40 characters.
- Incorporates multiple languages by default (Spanish, English, French, Portuguese, etc).
- Configurable with the PC-EASY CoNET software.
- Connectable to external keyboard (standard PC-PS2).
- Access to the control panel keyboard introducing a numeric code.
- Allows connection of up to 8 repeaters and/or 8 control panels in network.
- Contact ID (on specific request).
- Size: 363 x 331 x 96 mm.
- Certified according to EN-54-2 and EN 54-4 and CE mark according to the European Regulation of Construction Products (UE) N°305/2011.

### TECHNICAL FEATURES

<i>Input Voltage</i>	110/230 Vac 50/60Hz	<i>Maximum current per loop</i>	500 mA / 24 to 36V/DC
<i>Output Voltage</i>	24V Nominal	<i>Keyboard connector</i>	PS2 minidin 6
<i>Maximum Consumption</i>	70 VA to 230V/AC	<i>Communications port</i>	USB 2.0/1.1 type B & RS485
<i>Batteries</i>	2 x 12V 7Ah SLA	<i>Environmental conditions</i>	-10°C+50°C 20%-95% RH
<i>Battery Charger</i>	500 mA 27V/DC 20°C	<i>Size</i>	363 x 331 x 96 mm
<i>Devices per loop</i>	199	<i>Weight (without batteries)</i>	4,5 Kg
<i>Batteries Fuse</i>	4 A	<i>Standard</i>	EN 54 parts 2 and 4
<i>IP Protection</i>	IP 30	<i>S1 Sounder fuse</i>	1,85 A autoreset
		<i>30V Output fuse</i>	0,75 A autoreset



The algorithmic addressable Control Panel Compact Lyon is EN 54-2 and EN 54-4 standard certified according to the latest CE Directives/Regulation.

The Compact Lyon panel does the same functions that Lyon Control Panel, being fully compatible with it from the point of view of installation (cabling, analogue detectors, manual call points, modules and analogue sounders, etc.).

It is particularly interesting in medium-size installations, traditionally designed for conventional systems, allowing using an addressable system with all its functionality and advantage.

In case the installation should be extended, the Compact Lyon Control Panel has the control panels network function, whereby control panels can be connected together, also showing the information of the control panels connected to a repeater, besides allows an additional functionality of operation.

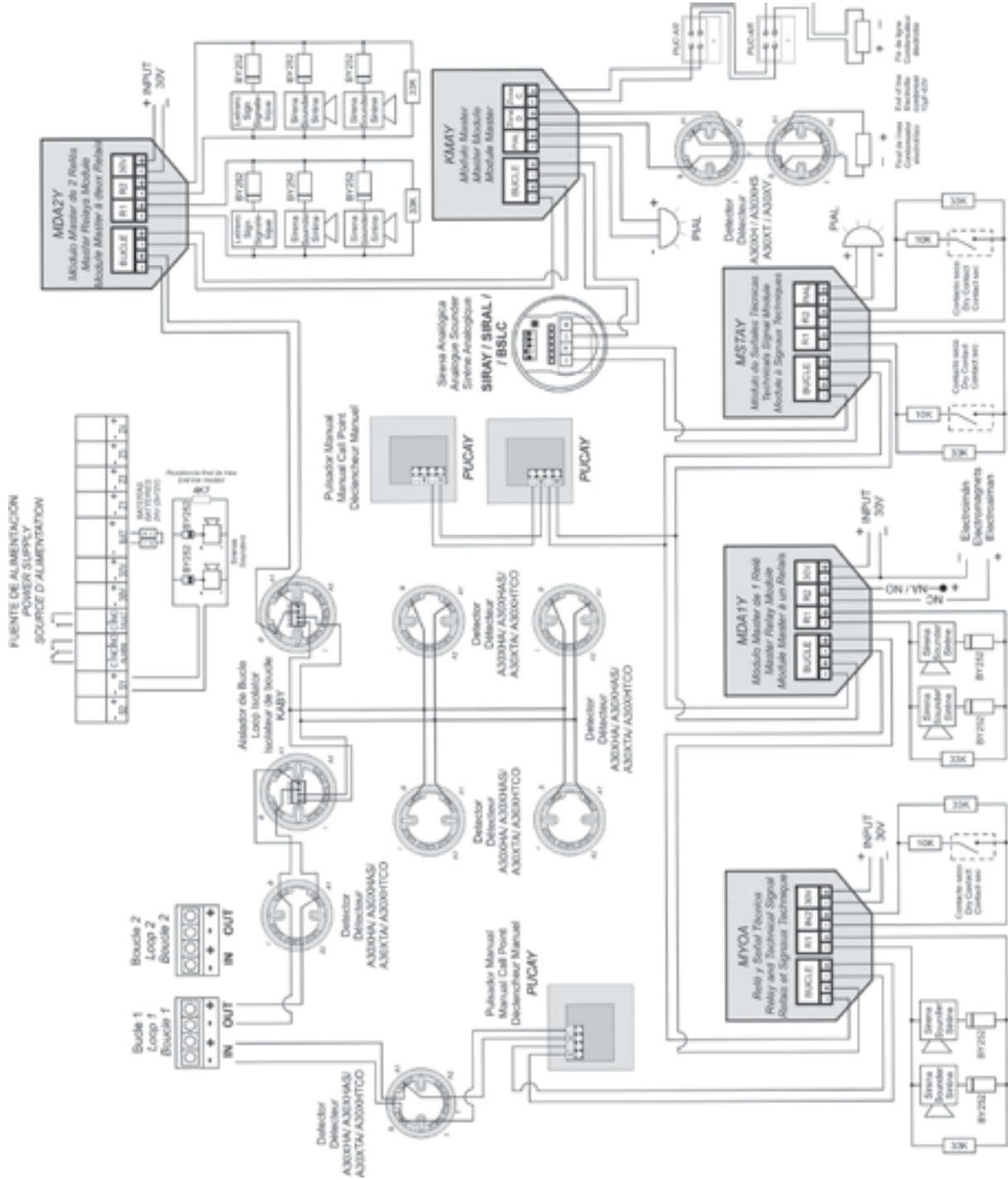
### **Features:**

- Control panel configurable with 1 or 2 loops.
- Loop capability 99 points.
- All the points are supervised by the control panel, except the loop isolator KABY.
- Capacity for 64 configurable relays per control panel.
- Can hold up to 99 zones per panel.
- Registry with capacity of 4095 events with date and time.
- Delay of supervised sounder output programmable between 0 to 10 minutes, identified as S1.
- Alarm output as free voltage relay not supervised, identified as ALARM.
- Failure general output, as free voltage relay not supervised, identified as FAULT.
- Allowed to connect addressable sounders in the loop.
- Evacuation push-button.
- Backlit LCD display with 4 lines and 40 characters.
- Incorporates multiple languages by default (Spanish, English, French, Portuguese, etc).
- Configurable with the PC-EASY CoNET software.
- Connectable to external keyboard (standard PC-PS2).
- Access to the control panel keyboard introducing a numeric code.
- Allows connection of up to 8 repeaters and/or 8 control panels in network.
- Contact ID (on specific request).
- Size: 363 x 331 x 96 mm.
- Certified according to EN 54-2 and EN 54-4 and EN 54-4 and CE mark according to the European Regulation of Construction Products (UE) N°305/2011.

### **TECHNICAL FEATURES**

<i>Input Voltage</i>	110/230Vac 50/60Hz	<i>Maximum current per loop</i>	250 mA / 24 to 36V/DC
<i>Output Voltage</i>	24V Nominal	<i>Keyboard connector</i>	PS2 minidin 6
<i>Maximum Consumption</i>	70 VA to 230V/AC	<i>Communications port</i>	USB 2.0/1.1 type B & RS485
<i>Batteries</i>	2 x 12V 7Ah SLA	<i>Environmental conditions</i>	-10°C+50°C 20%-95% RH
<i>Batteries charger</i>	500 mA 27V/DC 20°	<i>Size</i>	363 x 331 x 96 mm
<i>Devices per loop</i>	99	<i>Weight (without batteries)</i>	4,5 Kg
<i>Batteries Fuse</i>	4 A	<i>Standard</i>	EN 54 parts 2 and 4
<i>IP Protection</i>	IP 30	<i>S1 Sounder Fuse</i>	1,85 A auto reset
		<i>30V Fuse Output</i>	0,75 A auto reset





General wiring diagram (Lyon, Zafir and C-Lyon Control Panels)



EASY CoNET is a support software for programming and monitoring the status of Lyon, Zafir and Compact Lyon control panels of Cofem. With control panels at the market that support over 1000 points, it is important to have efficient labelling and programming tools.

The EASY CoNET software is designed for two functions:

#### Configuration of control panel:

The EASY CoNET software (basic version) can be loaded in any PC (usually a laptop computer). It allows to prepare the information of the installation (programming number, points label, activation of relays, zones, etc) for downloading to control panel through USB connection between PC and control panel. In this way, it is easier to work in configuration of control panel comfortable anyplace, and only going to the place of control panel for downloading configuration and start up system. Furthermore, the EASY CoNET software make also easier the management and control of the configurations with Lyon, Zafir and Compact Lyon control panels.

#### Control panel management with PC:

The EASY CoNET software (extended version) allows ONLINE and real-time management of control panel with a PC, allowing to interact on it (monitor, disabled zones, put on test, activate the evacuation, etc), as well as showing all the incidents (warning lights, location maps, capability to disabled or reset a detector, a relay, etc).

#### **Features:**

- Software for programming and management of Lyon, Zafir and Compact Lyon control panels.
- Software can be installed in any PC (the minim requirements are described in the EASY CoNET manual).

#### Basic Version (for control panel configuration):

- Allows programming of control panel with a PC (usually a laptop computer) in a Windows environment, later connection to control panel and download the information on it.
- Connection with USB.
- Easy management of all configurations with Lyon, Zafir and Compact Lyon control panels.
- Avoids the control panel configuration in front of it.
- The control panel configuration can be prepared wherever.

#### Extended Version (for ONLINE management):

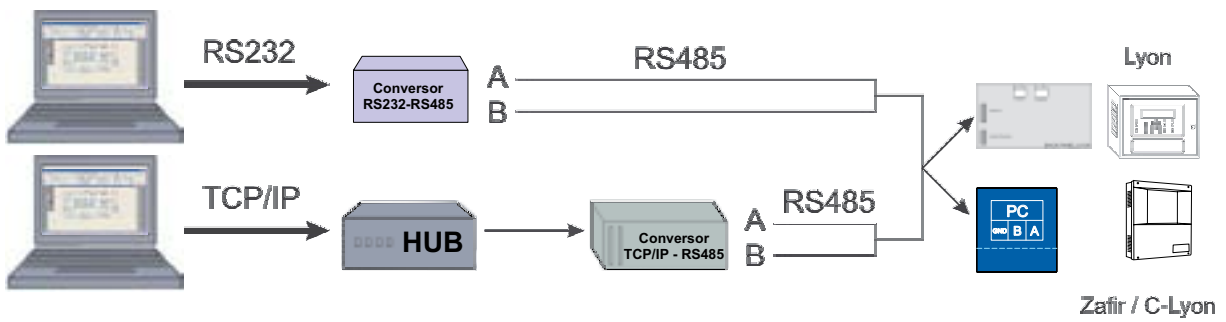
- ONLINE management of control panel, with multiples possibilities of control in a easy Windows environment (monitor, put on test, location maps, disabled or reset relays, etc).
- Distances up to 1200 m between control panel and PC are accepted, using RS232/485 convertors.
- Allow use wiring and TCP/IP protocol in the installation.

### CONNECTION BY USB (basic version)

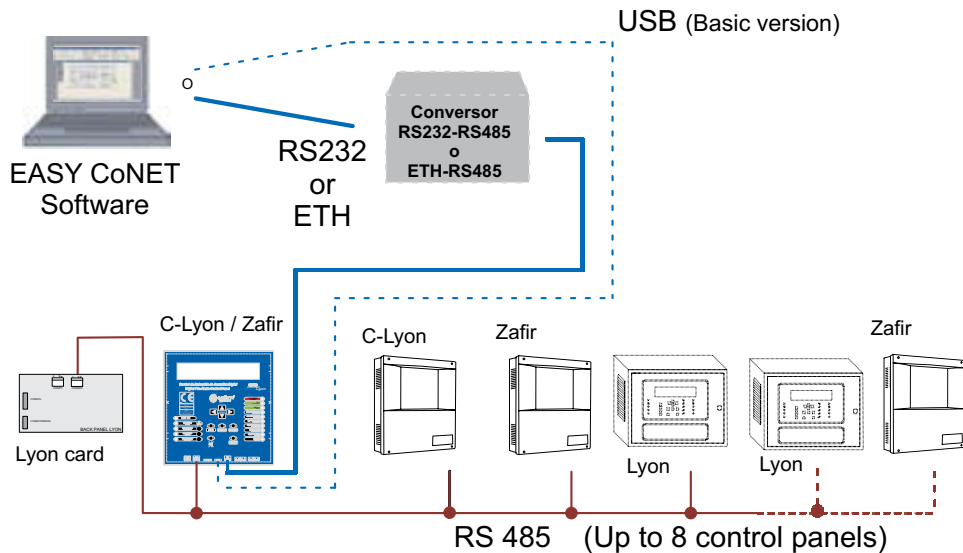


NOTE 1: USB cable length must be less than 3 m.

### CONNECTION FOR ONE CONTROL PANEL THROUGH PROTOCOL RS485 OR TCP / IP (Extended Version)



### EXAMPLE OF NET CONNECTION AND EASY CONET





## ZYR Kontrol Paneli

# AKILLI ADRESLENEBİLİR SİSTEM



The LYON / ZAFIR / COMPACT Lyon Control Panel allows to connect up to 8 repeaters, using a 4 wires of 1,5 mm<sup>2</sup> connection (two for supply and two for communication for RS485 line). The two wires of the RS485 line will be connected from the control panel to the corresponding repeaters. The repeater wiring is realized like the figure attached.

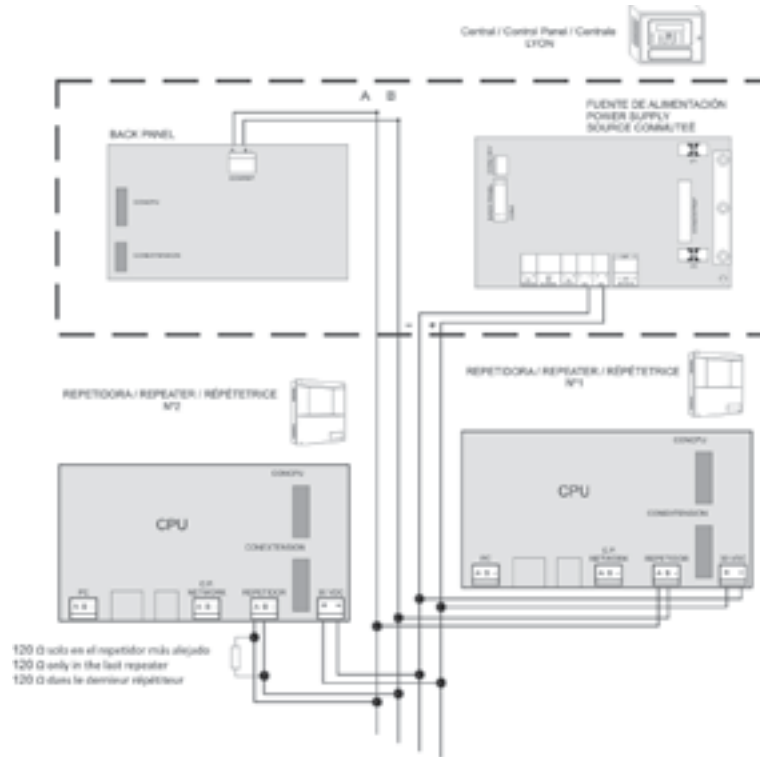
From 30V output of the control panel power supply is allowed up to 3 repeaters. For C-Lyon and Zafir control panels is allowed supply 1 repeater. The rest of repeaters should be connected with the from the 30V output of an external power source (FAE).

The wiring of repeaters, communication and power wires, will be realized with twisted and shielded halogen-free of 2 x 1,5 mm<sup>2</sup> wire, maximum length up to 1200 m.

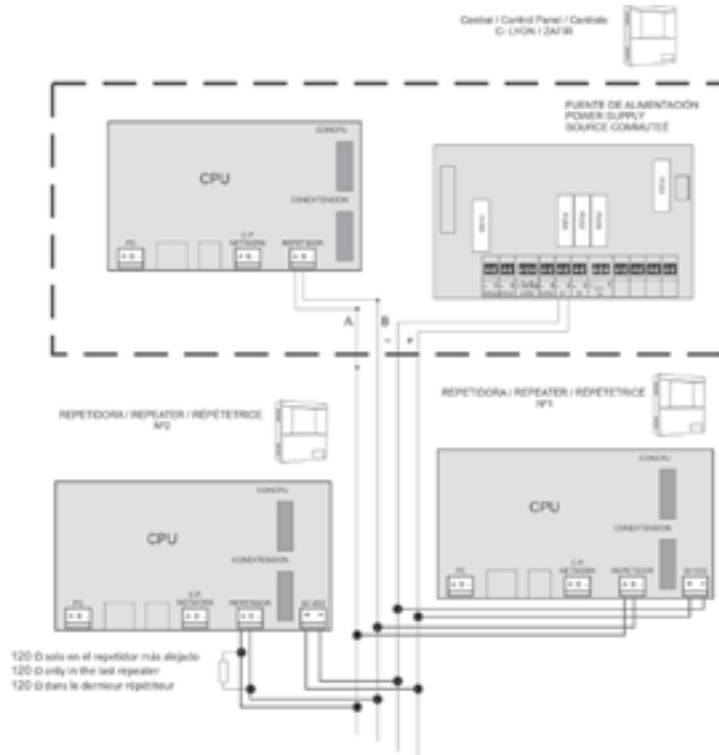
In the end of the line should be connected a 120 ohms resistance, in the back panel of the last repeater.

### TECHNICAL FEATURES

Supply	30 V
Standby consumption	150 mA
Humidity	20 - 95% HR
Temperature	-10°C +50°C
Dimensions	336 x 331 x 96 mm
Weight (without batteries)	4,5 kg
IP protection	IP 30



Wiring diagram (Lyon Control Panel)



Wiring diagram (Zafir and COMPACT Lyon Control Panel)



## A30XTA Sabit Isı Detektörü

# AKILLI ADRESLENEBİLİR SİSTEM



Algorithmic addressable heat sensor for fire detection.

The A30XTA sensor is based on the physical properties of a NTC. The variation of the electrical features of the NTC thermistor due to variation of room temperature makes it suitable for a heat sensor.

The A30XTA is capable of registering absolute temperatures (heat sensor) but also temperature rises (rise of heat rate sensor).

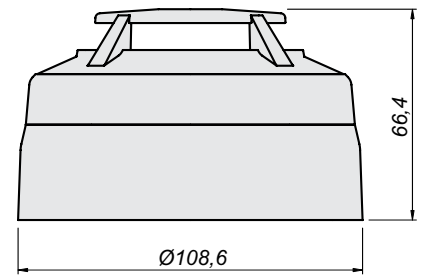
The heat rate function allows detect a fire in the first phases of its growth. If it is very slow, the sensor is activated when temperature reaches 55°C.

### Features:

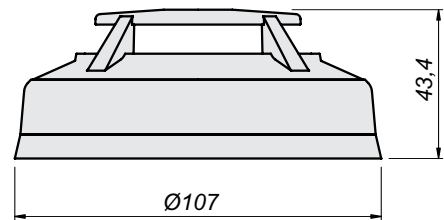
- Low section, total height less than 45 mm (including the base).
- Available with high base for electrical conduit of 20 mm.
- Alarm with two red LED, which makes easier the identification from any direction (360°).
- Possibility to connect a remote action indicator.
- Easy connection, without polarity.
- A single flash of LED indicators shows communication with the control panel, and alarm status with LED on.
- Detector and base with easy installation, interchangeable with the entire of range A30X, and manufactured in white heat-resistant ABS.
- According to EN 54 part 5 class A2R (sensors with heat rise function), and CE mark according to the European Regulation of Construction Products (UE) N°305/2011.

### TECHNICAL FEATURES

Power Supply	24 - 35V non-polarized
Standby Current	1 mA
Alarm Current	5 mA
Activation Signal	Two Red LED ( 360° visibility)
Remote Indicator Output	Yes
Humidity	20 - 95% RH
Temperature	-10°C +50°C
Sensitivity	According to EN 54-5 Class A2R
IP Protection	IP 20



High base assembly



Low base assembly



A30XHA



A30XHAS

Algorithmic addressable optical smoke sensor for fire detection.

The optical smoke sensor A30XHA / A30XHAS is based on the Tyndall effect (light refraction in a dark chamber) created in an optical chamber.

The variation of the electrical features of the chamber in the presence of combustion aerosols makes it suitable for smoke sensing.

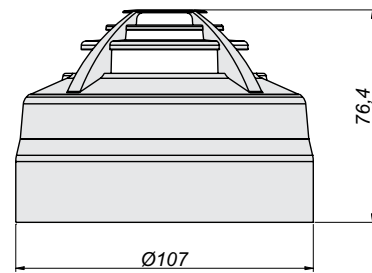
The sensor A30XHA (optical-heat sensor) also has a static heat element that sets it into alarm status when temperature reaches 55°C.

### Features:

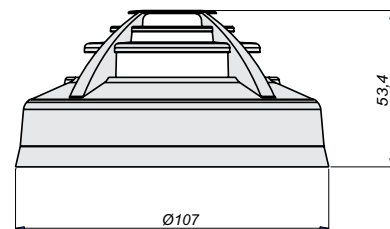
- Low section, total height less than 53,4 mm (including the base).
- Available with high base for electrical conduit of 20 mm.
- Alarm with two red LED, which makes easier the identification from any direction (360°).
- Possibility to connect a remote action indicator.
- Easy connection, without polarity.
- A single flash of LED indicators shows communication with the control panel, and alarm status with LED on.
- Indication of contamination status of the sensor in the control panel display (the sensor discriminates between fast alarm signal and slow and sustained small increases due to the accumulation of dust and dirt).
- Detector and base with easy installation, interchangeable with the entire of range A30X, and manufactured in white heat-resistant ABS.
- According to EN 54-7 Standard, and CE mark according to the European Regulation of Construction Products (UE) N°305/2011.

### TECHNICAL FEATURES

Power Supply	24 - 35V non-polarized
Standby Current	1 mA
Alarm Current	5 mA
Activation Signal	Two Red LED (360° visibility)
Remote Indicator Output	Yes
Humidity	20 - 95% RH
Temperature	-10°C +50°C
Sensitivity	According to EN 54-7
IP Protection A30XHA	IP 20
IP Protection A30XHAS	IP 40



High base assembly



Low base assembly



## A30XHTCO Kombine Optik Duman, Isı ve CO Detektörü

## AKILLI ADRESLENEBİLİR SİSTEM



Algorithmic addressable multisensor for fire detection.

The A30XHTCO has three different types of sensors: one optical smoke sensor, one heat sensor and one carbon monoxide sensor (CO).

The use of the CO sensor is very valuable for the early detection for some types of fire.

As well, the integration with the optical smoke detector inside its algorithm of dynamic processing, give us, as main results, a compact detector very robust facing the false alarms

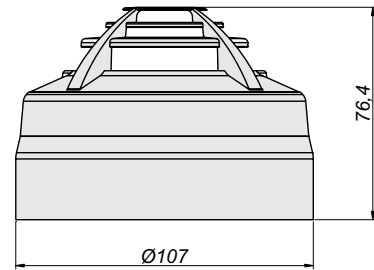
For complete its benefits, the sensor also has a heat element sets it alarm status when temperature reaches 55°C.

### Features:

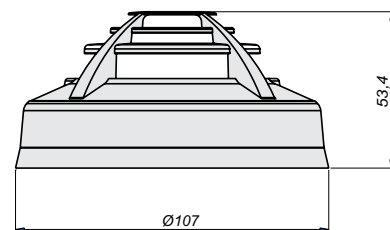
- Low section, total height less than 53,4 mm (including the base).
- Available with high base for electrical conduit of 20 mm.
- Alarm with two red LED, which makes easier the identification from any direction (360°).
- Possibility to connect a remote action indicator.
- Easy connection, without polarity.
- A single flash of LED indicators shows communication with the control panel, and alarm status with LED on.
- Indication of contamination status of the sensor in the control panel display (the sensor discriminates between fast alarm signal and slow and sustained small increases due to the accumulation of dust and dirt).
- Dynamic processing algorithm that reduces drastically incidences due to false alarms.
- Detector and base with easy installation, interchangeable with the entire of range A30X, and manufactured in white heat-resistant ABS.
- According to EN 54-7 Standard, and CE mark according to the European Regulation of Construction Products (UE) N°305/2011.

### TECHNICAL FEATURES

Power Supply	24 - 35V non-polarized
Standby Current	1 mA
Alarm Current	5 mA
Activation Signal	Two Red LED (360° visibility)
Remote Indicator Output	Yes
Humidity	20 - 95% RH
Temperature	-10°C +50°C
Sensitivity	According to EN 54-7
IP Protection	IP 40
Lifespan	5 years



High base assembly



Low base assembly





Resettable Manual Call Point (with short-circuit isolator) for algorithmic addressable detection systems.

It has a LED that lights up when the call point is manually triggered (alarm), as well as showing a yellow tab on the lower side of the activation face. A single flash shows communication with the control panel.

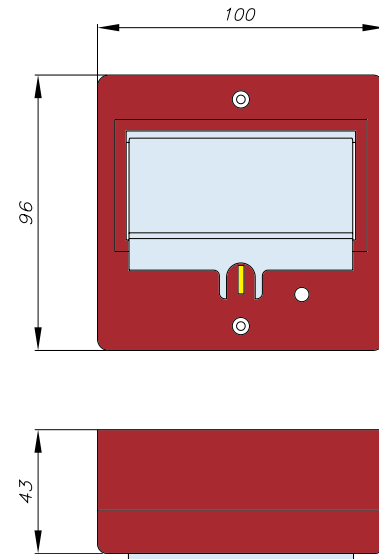
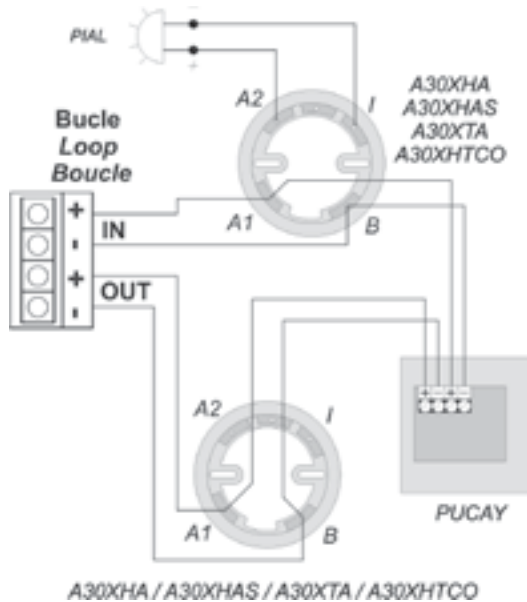
It is easy to reset through activation of the yellow button sited in the front face by means of a screwdriver.

### Features:

- Easily resettable call point by pushing yellow button on the front side.
- Transparent protector cover to avoid accidental false alarms.
- Self-identified element in the fire detection algorithmic and addressable.
- Communication with the control panel is indicated by a single flash of the LED.
- Immediate visual recognition of alarm status by the permanent activation of the LED, and the trigger of the yellow tab on the lower side of the activation face.
- According to EN 54-11 Standard, and CE mark according to the European Regulation of Construction Products (UE) N°305/2011.

### TECHNICAL FEATURES

Power Supply	24 - 35V with polarity
Standby Current	1 mA
Alarm Current	5 mA
Activation Signal	Red Light
Remote Indicator Output	No
Humidity	20 - 95% RH
Temperature	-10°C +50°C
Standard	EN 54-11
IP Protection	IP 50





## KMAY Master Modül

# AKILLI ADRESLENEBİLİR SİSTEM



Microprocessed algorithmic addressable device (with short-circuit isolator) installed as another element inside the loop.

This is a device that allows connecting conventional detectors and/or manual call point inside an algorithmic addressable fire detection system, performing the interface function between the algorithmic addressable detection system and the conventional one.

In the "Zona C" terminal, a maximum of 10 conventional call points can be installed. In the "Zona D" terminal, it is allowed 20 temperature detectors (A30XT, A30XV) or 15 elements between conventional smoke detectors (A30XH, A30XHS) and manual call points. Both terminals are monitored by an end of line capacitor, 10 $\mu$ F/63V. In this way, it is indicated an open line, crossed line, alarm detector or alarm manual call point status.

The flashing of the transparent red LED indicates communication with the control panel, and if it remains on it indicates the alarm status of a detector or manual call point connected to this module.

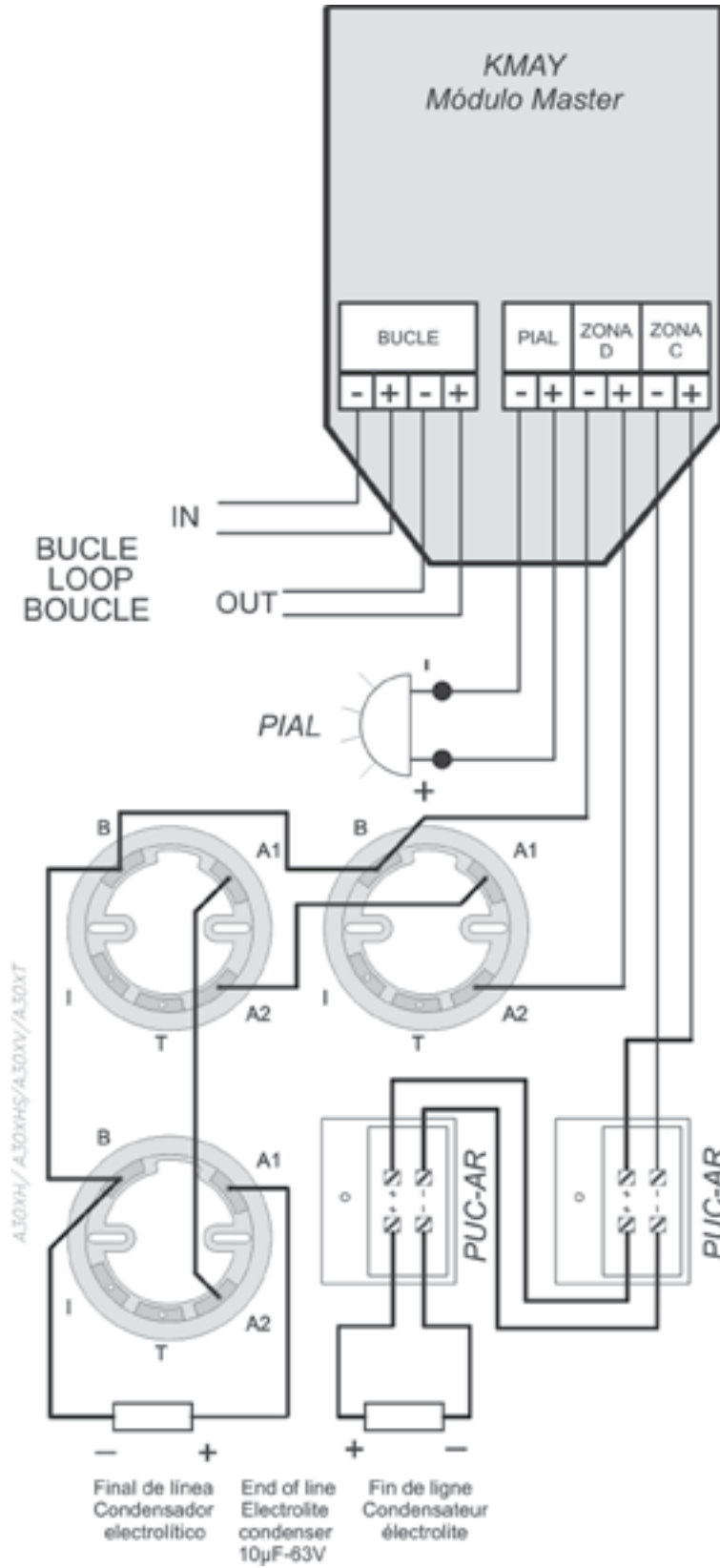
This module has an output for activation of a remote indicator which will be activated when alarm status is reached. The Master Detection Module takes the power supply from the loop.

The Master Detection Module is placed in a rectangular, heat-resistant ABS box.

The module is certified according to EN 54-18 Standard, and CE mark according to the European Regulation of Construction Products (UE) N°305/2011.

### TECHNICAL FEATURES

Power Supply	24 - 35V with polarity
Standby Current	1 mA
Short-Circuit Isolator	Yes
Zone voltage	20V with polarity
Activation Signal	Red Light
Remote Indicator Output	Yes
Humidity	20 - 95% RH
Temperature	-10°C +50°C
Size	140,5 x 73 x 48mm
Standard	EN 54-18
IP Protection	IP 30





## MDA1Y Röle Modülü

# AKILLI ADRESLENEBİLİR SİSTEM



Microprocessed algorithmic addressable device (with short-circuit isolator) installed as another element inside the loop.

The module takes the power supply from the loop, but it requires an auxiliary 30 V supply to give the necessary energy to the devices controlled by the relays. It monitors the presence of voltage in the auxiliary supply line of 30V and in the output of the monitored relays.

The module is protected by 0,9 A resettable fuse and each monitored output by 0,5 A.

The flashing of the transparent red LED indicates communication with the control panel. Illumination of the green LED indicates the actuation of a relay.

It is a module with two relay outputs of simultaneous activation (with a single function), not only in its type of application (sounder, switches or pre-alarm), but also in their timing and in the combination of sensors that activate them.

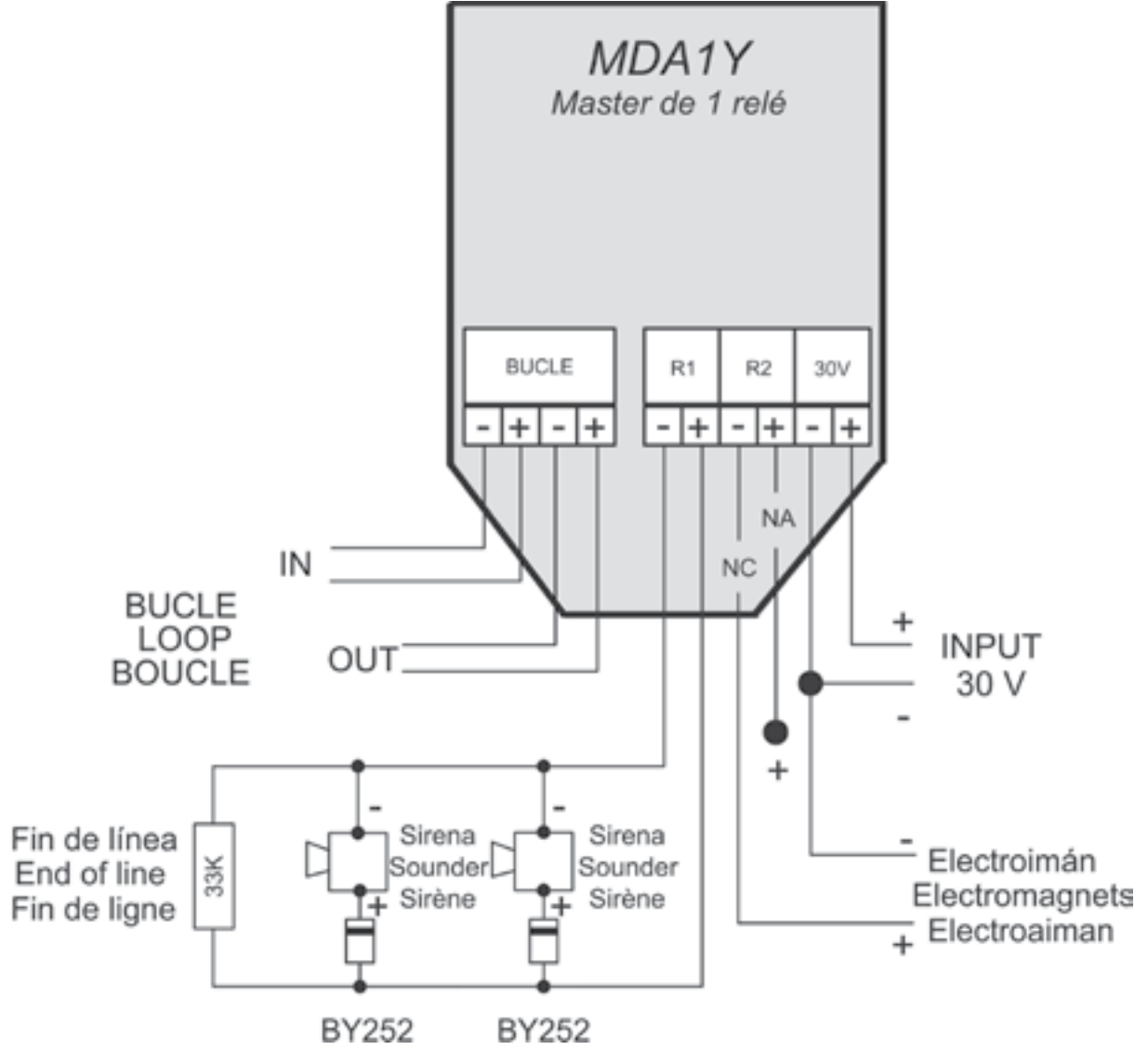
The R1 output relay is monitored with a line termination resistance of 33 k $\Omega$ , indicating the state of opened line or crossed line. The R2 output relay acts as a dry contact NO and NC, not monitored, which typical application in the energizing of the electromagnets of fire-resistant doors. Considering the consumption produced across the system, it is recommended installation of an external power supply when connecting more than 10 electromagnets altogether per detection system.

The device is placed in a rectangular heat-resistant ABS box.

The module is certified according to EN 54-18 Standard, and CE labelled according to the European Regulation of Construction Products (UE) N°305/2011.

### TECHNICAL FEATURES

Power Supply	24 - 35V with polarity
Standby Current	1 mA
Short-Circuit Isolator	Si
Relay supervision voltage	7V with reverse polarity
Relay output voltage	30V
Activation signal	Green Light
Communication Indicator	Red Light
Humidity	20 - 95% RH
Temperature	-10°C +50°C
Size	140,5 x 73 x 48 mm
Standard	EN 54-18
IP Protection	IP 30





## MDA2Y Röle Modülü

# AKILLI ADRESLENEBİLİR SİSTEM



Microprocessed algorithmic addressable device (with short-circuit isolator) installed as another element inside the loop.

The module takes the power supply from the loop, but it requires an auxiliary 30 V supply to give the necessary energy to the devices controlled by the relays. It monitors the presence of voltage in the auxiliary supply line of 30 V and in the output of the monitored relays.

The module is protected by 0,9 A resettable fuse and each monitored output by 0,5 A.

The flashing of the transparent red LED indicates communication with the control panel. Illumination of the green LED indicates the actuation of a relay.

It is a module with two relay outputs of independent activation (two functions), not only in their type of application (sounder, switches or crossed relay), but also in their timing and in the combination of sensors that activate them.

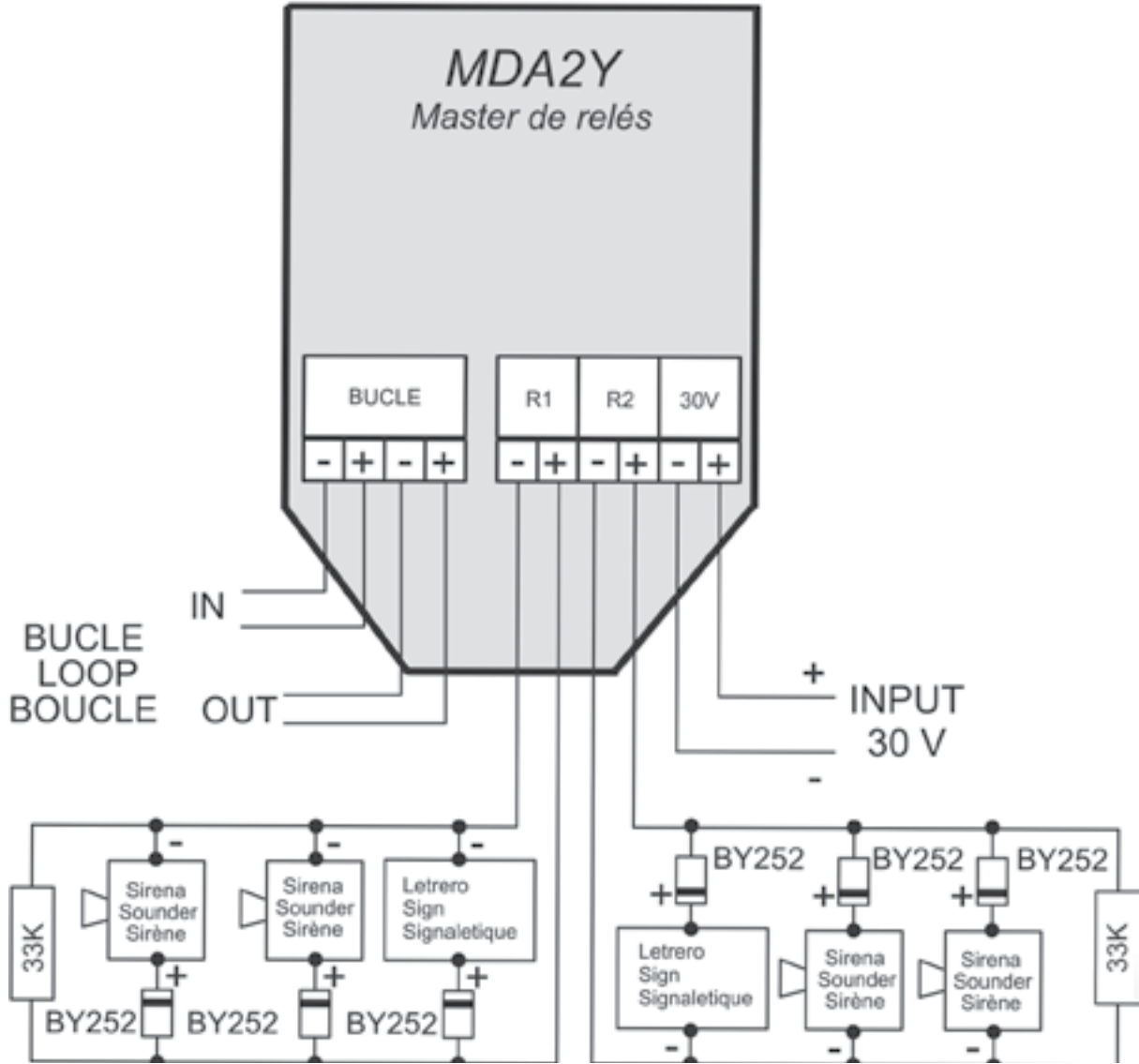
In the standby state, the MDA2Y monitors both external line by means of a 33 k $\Omega$  resistance, indicating the state of open line or crossed line.

The device is placed in a rectangular heat-resistant ABS box.

The module is certified according to EN 54-18 Standard, and CE labelled according to the European Regulation of Construction Products (UE) N°305/2011.

### TECHNICAL FEATURES

Power Supply	24 - 35V with polarity
Standby Current	1 mA
Short-Circuit Isolator	Si
Relay supervision voltage	7V with reverse polarity
Relay output voltage	30V
Activation Signal	Green Light
Communication Indicator	Red Light
Humidity	20 - 95% RH
Temperature	-10°C +50°C
Size	140,5 x 73 x 48 mm
Standard	EN 54-18
IP Protection	IP 30





Microprocessed algorithmic addressable device (with short-circuit isolator) installed as another element inside the loop.

It has two inputs to distinguish between the open or close state of a dry contact connected in series with a 10 k $\Omega$  resistor. In quiescent condition, the contact has to be open, and in anomaly condition, the contact has to be closed. In the first input (marked with IN1), the closed contact is detected as an ALARM condition. In the second input (marked with IN2), the closed contact is detected as FAULT warning condition. It is possible to associate both inputs having an alarm and fault conditions information.

In the quiescent condition, the device supervises the electrical connection through a 33 k $\Omega$  resistor, which allows indication of open or closed electrical connection status.

It is typically used to signal the status of other detection systems that may exist, as for example, connection of flow sensors in the case of sprinkler installations, end of travel in the case of fire-resistant doors, elevators, level of deposits, etc.

The flashing of the transparent red LED indicates communication with the control panel, and if it remains lit, it indicates an alarm status. The illumination of the green LED indicates activation of one or both inputs.

This device has an output for connection to a remote action indicator, which is activated when in alarm status. This element is electrical fed through the loop connection.

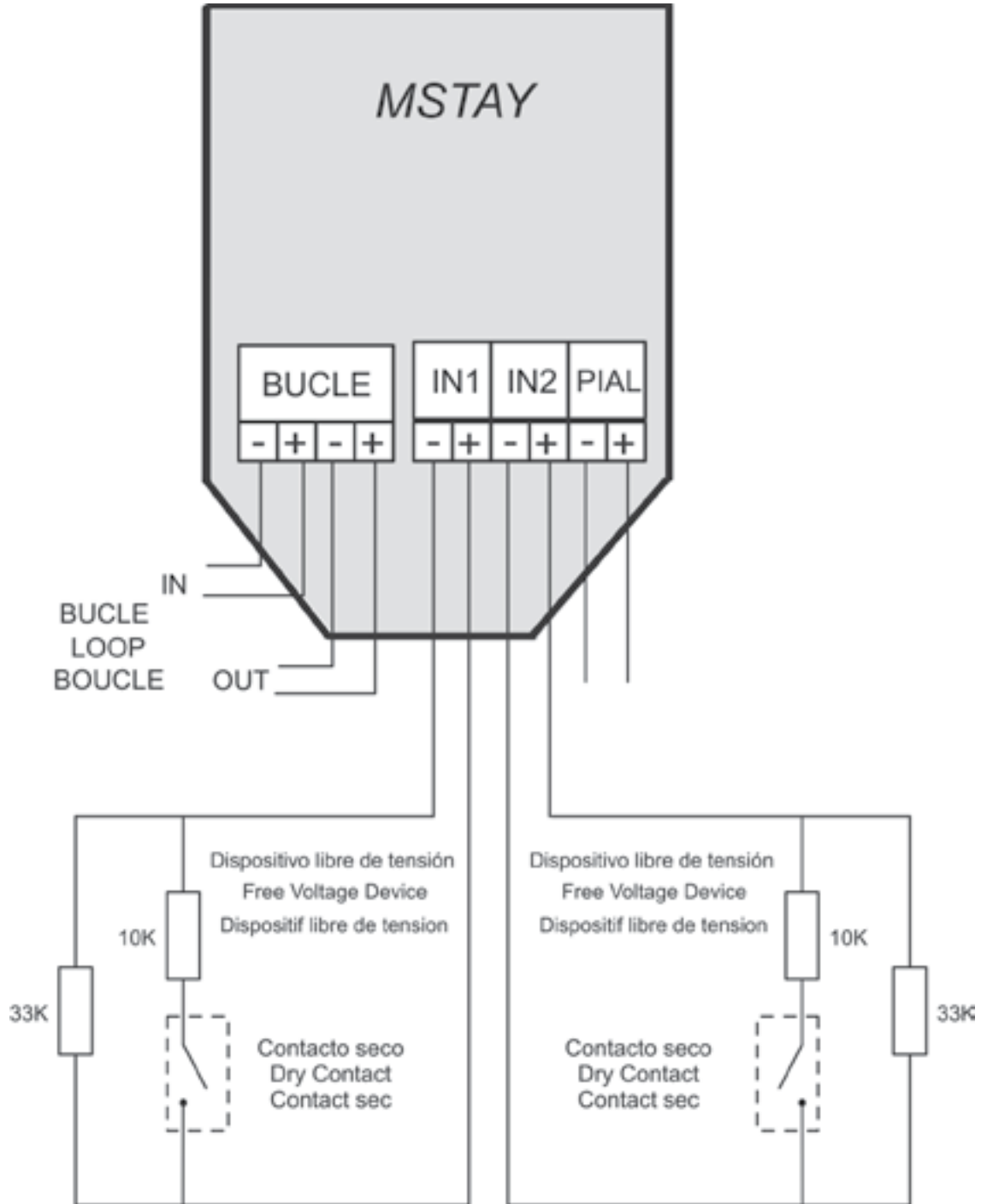
The device is placed in a rectangular, heat-resistant ABS box.

The module is certified according to EN 54-18 Standard, and CE mark according to the European Regulation of Construction Products (UE) N°305/2011.

### TECHNICAL FEATURES

Power Supply	24 - 35V with polarity
Standby Current	1 mA
Short-Circuit Isolator	Yes
Supervision voltage	7V with reverse polarity
Remote Indicator Output	Yes
Activation signal	Green Light
Communication/Alarm Indicator	Red Light
Humidity	20 - 95% RH
Temperature	-10°C +50°C
Size	140,5 x 73 x 48 mm
Standard	EN 54-18
IP Protection	IP 30







## MYOA Giriş & Çıkış Modülü

# AKILLI ADRESLENEBİLİR SİSTEM



Microprocessed algorithmic addressable device (with short-circuit isolator) installed as another element inside the loop.

This module has one relay output fed by external 30 V and one technical signal input to distinguish the open or closed state of a dry contact. The Module is protected by 0,9 A resettable fuse and the relay by 0,5 A.

This module is electrical fed through the loop connection, but it is required auxiliary 30 V for feeding the equipment's connected to the relay output. The relay is configured with only one function (sounder, switched or crossed relay), but also in its timing and in the combination of sensors that activate it. The module monitors the presence of voltage in the auxiliary supply line of 30 V and in the output of the monitored rely. The voltage output of the relay is 30 V.

The technical signal input has a 10 k $\Omega$  resistor connected in series with the dry contact. In quiescent condition, the contact has to be open, and in anomaly condition, the contact has to be closed. In the input (marked with IN2), the closed contact is detected as ALARM condition.

The MYOA supervises each external line (relay output and technical signal input) through a 33k $\Omega$  each one, which allows indication of open or closed electrical connection status.

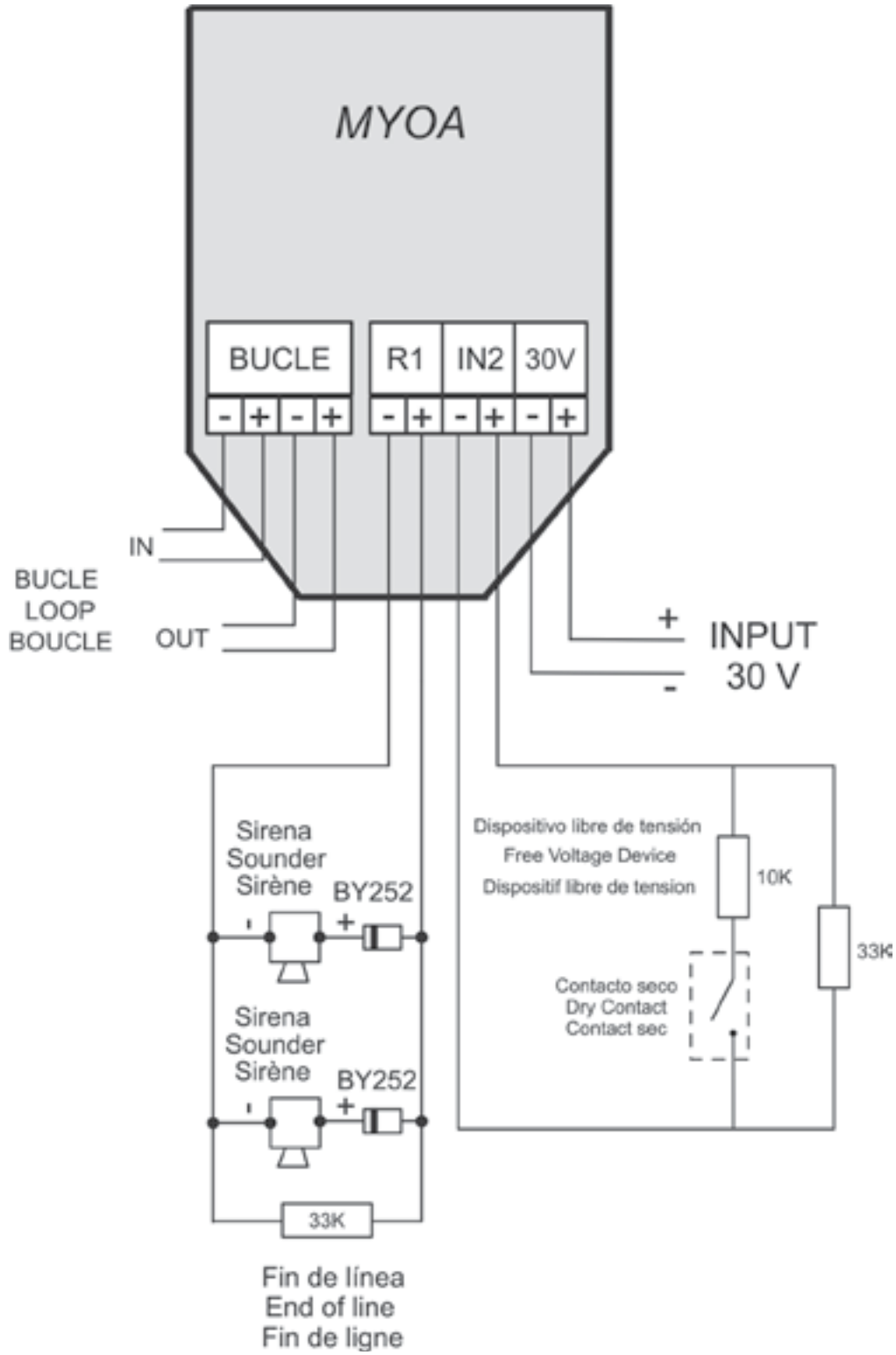
The flashing of the transparent red LED indicates communication with the control panel, the fix light of red led indicates the alarm status of the input, and the illuminated green LED indicates the activation of the relay.

The Relay and Technical Signal Module is placed in a rectangular, head-resistant ABS box.

The module is certified according to EN 54-18 Standard, and labelled according to the European Regulation of Construction Products (UE) N°305/2011.

### TECHNICAL FEATURES

Power Supply	24 - 35V with polarity
Standby Current	1 mA
Short-Circuit Isolator	Yes
Supervision voltage	7V with reverse polarity
Remote Indicator Output	No
Activation signal	Green Light
Communication/Alarm Indicator	Red Light
Humidity	20 - 95% RH
Temperature	-10°C +50°C
Size	140,5 x 73 x 48 mm
Standard	EN 54-18
IP Protection	IP 30





## KABY İzolatör Modülü

# AKILLI ADRESLENEBİLİR SİSTEM



Microprocessed algorithmic element installed as another element inside the loop (It is not addressable – There is not need to configure this element).

This is a protection element that is connected into the detection loop, with the aim of isolating stretches with crossed line failures, and allowing therefore the rest of the loop to operate normally.

It is supplied installed inside of a high base. This assembly allows having it in the same place as the detector, making easy the connection of the loop wiring.

We recommend installing a module or element with isolator, minimum every 32 elements of the loop.

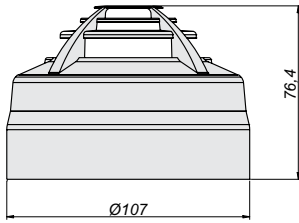
The base has two stickers in the outer side with the word "KABY" to allow easy recognition.

The element is feed from the loop connection.

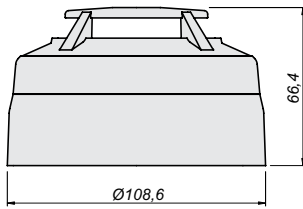
The module is certified according to EN 54-17 Standard, and CE labelled according to the European Regulation of Construction Products (UE) N°305/2011.

### TECHNICAL FEATURES

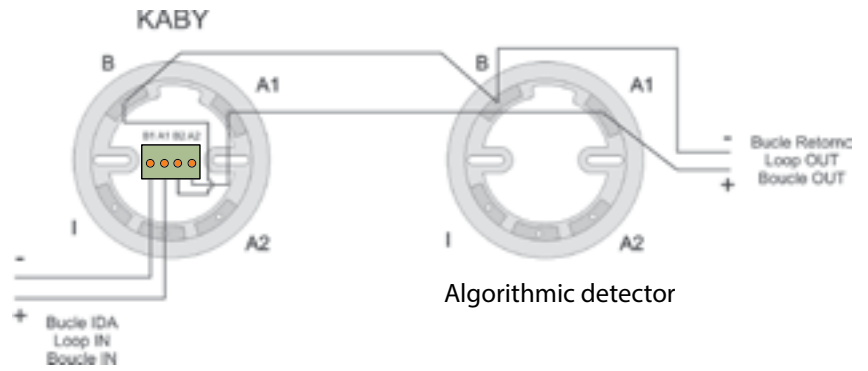
Power Supply	24 - 35V with polarity
Standby Current	110 $\mu$ A
Short-Circuit Isolator	Yes
Remote Indicator Output	No
Humidity	20 - 95% RH
Temperature	-10°C + 50°C
Standard	EN 54-17
IP Protection	IP 30



Montaje para A30XHA  
Assembly for A30XHA  
Assemblage pour A30XHA



Montaje para A30XTA / A30XHAS  
Assembly for A30XTA / A30XHAS  
Assemblage pour A30XTA / A30XHAS





SIRAY



SIRAYL



SIRAY+BSLC

Microprocessed digital and addressable device (with short-circuit isolator) installed as another element inside the loop. The sounder is made of in ABS heat-resistant plastic red color.

Is a module with a single programming function in terms of the timing and combination of sensors that trigger it. This sounder is configured as a relay acting as sounder.

The variant SIRAYL and SIRAY+BSLC additionally emit light signals, where in addition, the SIRAY+BSLC makes it according to EN 54-23 (visual alarm device). The fact that specifically these sounders emitting light does not affect the programming of the control panel. For this reason, these devices are programmed in the control panel as if they were the reference SIRAY.

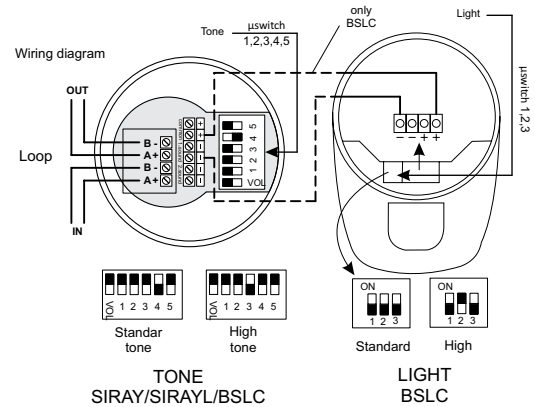
The standard configuration of the sound of the sounder is shown in the bottom figure according to EN 54-3 (acoustic device). The same figure shows the standard configuration of the light signal at the base of the sounder SIRAY+BSLC according to EN 54-23 (visual alarm device).

It is possible to change the tone and light signal selection, but this operation affects the power consumption of the sounder, and therefore, the consumption of the device points. The bottom figure shows a table of equivalence for tone selections (standard 95 dB - 1m and maximum sound intensity 105 dB - 1m) and visual signal (W-2, 4-2, 37, 5). It is possible to calculate the precise calculation with the software of loop elements capacity.

Internal wiring and other microswitchs positions must be unmodified selected by the manufacturer.

### TECHNICAL FEATURES

Power supply	24 - 35V with polarity
Standby current	1 mA
Alarma current	5 - 50 mA
Short-circuit isolator	Yes
Operating temperature	-10°C + 55°C
Size	Ø95 x 91 mm / Ø95 x 107 mm (SIRAYL) Ø95 x 95 (high) x 135 mm (SIRAY+BSLC)
Standard	EN 54-3 / EN 54-23 (BSLC)
IP protection	IP 65
Sound intensity	95 / 105 dB - 1m (SIRAY / SIRAYL)
Light intensity	w 2,4 - 2,3 / 7,5 m (BSLC)



Devices limits per Control Panel									
Reference	Description	LYON & ZAFIR control panel				C-Lyon Control Panel			
		Loop limit	Element equivalence			Cable section	Loop limit	Element equivalence	Cable section
			Cable length	≤ 800 m	≤ 500 m				
SIRAY	Addressable sounder	32	8/16 <sup>A</sup>	6/12 <sup>A</sup>	4/8 <sup>A</sup>	>	≤ 1350 m	2x2,5mm <sup>2</sup>	
SIRAYL	Addressable sounder with light	32	10/20 <sup>A</sup>	8/14 <sup>A</sup>	6/10 <sup>A</sup>	>	≤ 1350 m	2x2,5mm <sup>2</sup>	
SIRAY+BSLC	Addressable sounder with EN 54-23 light	19	25/35/40 <sup>B</sup>	16/24/26 <sup>B</sup>	12/20/22 <sup>B</sup>	>	≤ 1350 m	2x2,5mm <sup>2</sup>	

<sup>A</sup>) Values correspond with the standard/maximum sound intensity of the sounder.  
<sup>B</sup>) Value corresponds with the sound-light standard/ sound or light at maximum/ sound and light at maximum, sounder intensity  
 Note: The cable is considered with resistance of 32,9 Ω/Km\*mm<sup>2</sup> (Copper cable).



Remote action indicator of fire detection system.

The PIAL allows showing alarm status of sensors and modules of algorithmic systems, as well as of sensors of conventional systems.

Typical cases of use:

- Places where elements of the detection system are not visible, for example, inside false ceiling, in which the PIAL can be visibly situated on the lower part of the ceiling or near the wall.
- Reduced accessibility rooms or that is needed do a big inspection range for the identification of the element in alarm, for example in hotel rooms, where the PIAL can be situated above the door frame of each room, making very easy its identification.

Permanent activation of the red LED indicates alarm status.

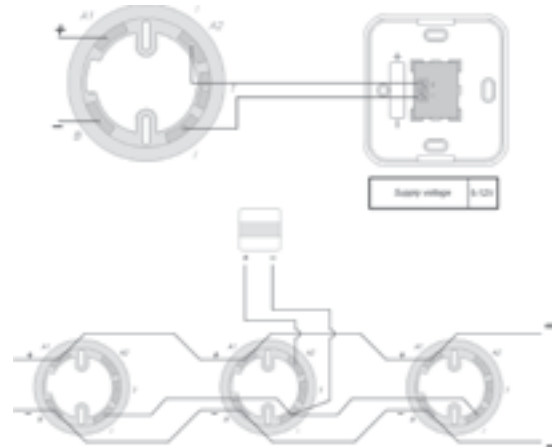
It is an element easy to install, both for its electrical wiring and its fixation. Furthermore, can be adapted to the conduit boxes and switchgear.

### **Features:**

- Alarm status can be identified in any perpendicular direction at its installation.
- Easy connection, with polarity.
- Can be adapted to the conduit boxes and switchgear.
- The red light is produced by two LEDs, increasing reliability against failure of any of them.
- Manufactured in heat-resistant ABS. Base and lid are white, red viewer.

### *TECHNICAL FEATURES*

Supply	5 - 12 V/DC with polarity
Standby consumption	0 mA
Alarm consumption	5 mA
Activation signal	Red led
Humidity	20 - 95% RH
Temperature	-10°C +50°C
IP protection	IP 50

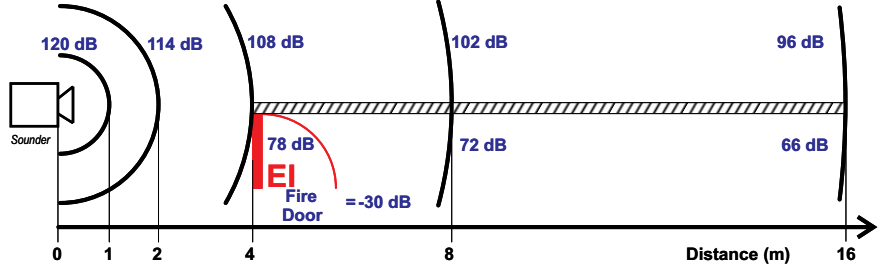


wiring diagram

Sound level (dB-(A))	Distance (m)
120	1
114	2
108	4
102	8
96	16
90	32
84	64

### ACOUSTIC GENERAL RULES

- Every time you double the distance, 6 dBs are lost.
- 30 dBs are lost for every fire door.
- 20 dBs are lost for every normal door.



Indoor sounders to be directly connected to the output of control panels or relay modules.

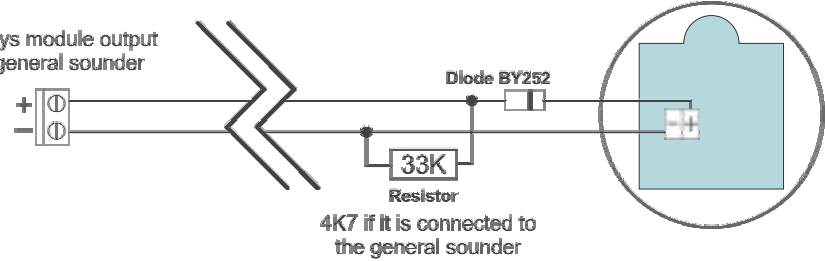


### ALARM BELL 6" CA6

Output voltage	24 Vcc
Consumption	25 mA
Output volume	95 dBA at 1 meter 92 dBA at 3 meters
Operative temperature	-20°C to 60°C
Humidity	Max. 90% RH
Size	6" (150 mm x 56 mm)
Weight	764g
IP protection	IP33



Relays module output  
or general sounder

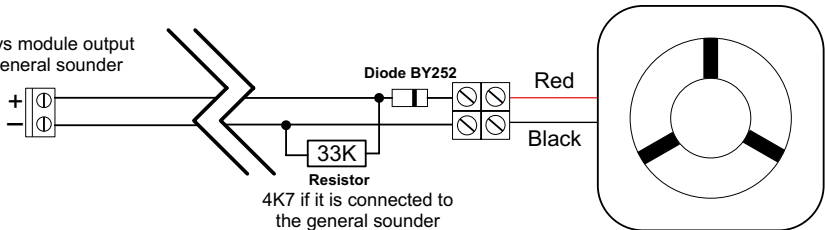


### SIR24P & SIR24F SOUNDERS

Material	red P.V.C.
Operating voltage	30 Vdc
Consumption at 30 Vdc	70 mA
Sound level	85 dB
Operating temperature	5°C to 40°C
Size	80 x 80 x 30 mm
With intermittent flash	Only SIR24F model



Relays module output  
or general sounder





List of indoor and outdoor sounders to connect directly to the sounder output of the control panels or relay modules.

### **SOUNDER SIR24B, SIR24BL, SIR24BZA and BSLC**

- Indoor and outdoor sounder made of red ABS.
- Great sound level. Low consumption.
- 32 selectable tones. Volume control.
- Automatic synchronization.
- SIR24B: Sounder.
- SIR24BL: Sounder with light.
- SIR24BZA: Sounder with high base.
- BSLC: Base with light, certified EN54-23.

Voltage range	9-28 Vdc
Consumption (using tone 3)	at 24 Vdc 16 mA
Output volume (tone 3)	at 24 Vdc 102 dB (A)
Operating temperature	-25°C to +70°C
Size	Ø95 x 91 mm (SIR24B) Ø95 x 135 mm (SIR24BL/SIR24BZA) Ø95 x 95 x 135 mm (SIR24B+BSLC)
IP protection	IP54-SIR24B IP65-SIR24BL IP65-SIR24BZA IP65-SIR24B+BSLC



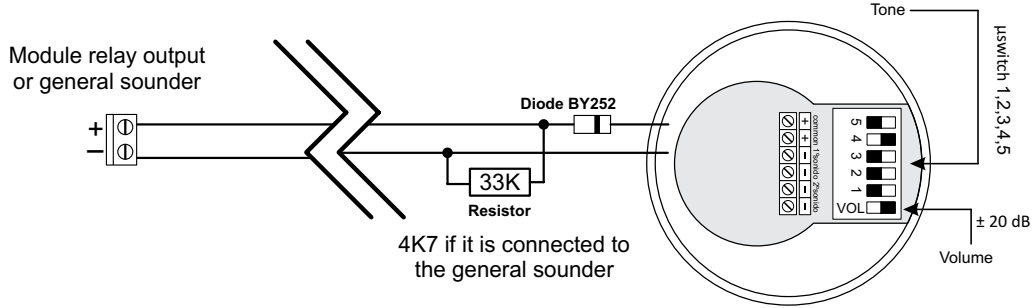
### **SIRENA CAEPL and CAEPLH**

- Outdoor red sounder made of ABS plastic.
- Back cover to protect the PCB's.
- They work like power sounders at 24V.
- Piezobuzzer sounder.

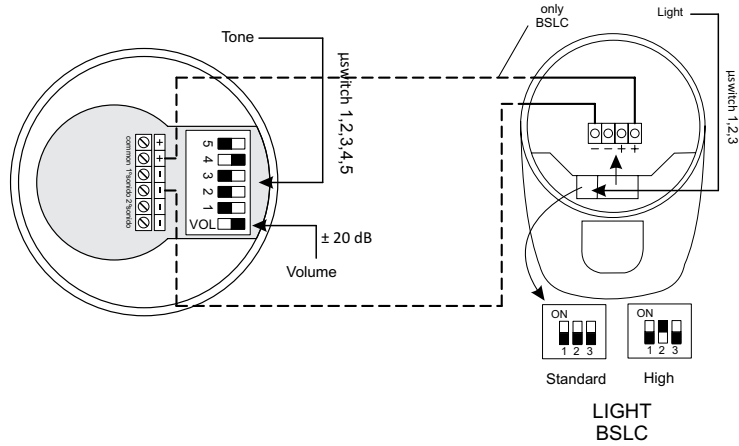
Activation	By supply activation
Supply	24 Vcc
Power	85 dB / 112 dB
Cycles	2 / 3 / 5 / 10 cycles
Timing by cycle	60 sec ON / 30 sec OFF
LEDs	2 LEDs of voidable option
Size	320 x 218 x 77 mm (CAEPLH) 220 x 315 x 70 mm (CAEPL)
Current / consumption	450 mA
IP protection	IP65 (sealed with silicone)



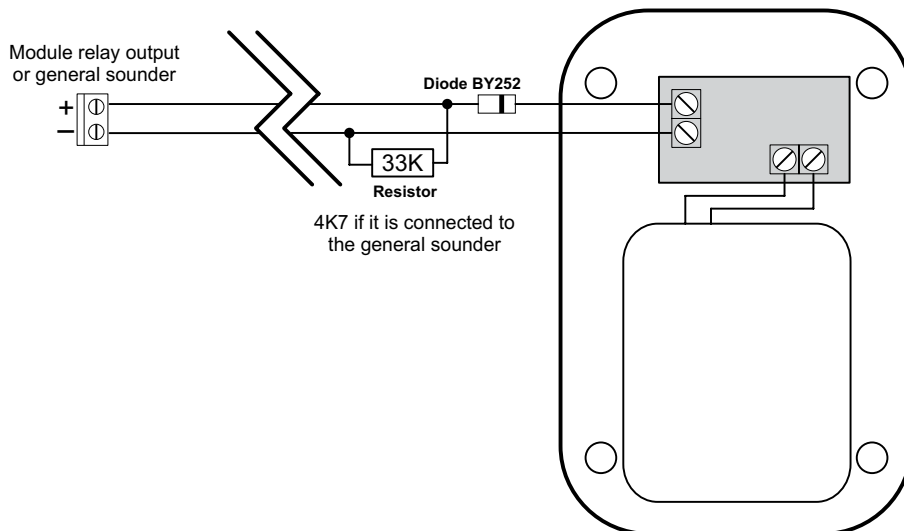
### SIR24B, SIR24BL AND SIR24BZA SOUNDERS



### SIR24B + BSLC SOUNDERS



### CAEPLANDCAEPLHSOUNDERS





SIRCEI



SIRWAL



SIR-PIT



SIR24SC



SIR24SC+BSLC

### **Luminous warning devices:**

Devices that when are activated emit flashes of light in order to alert people with hearing disabilities:

#### A. SIRWAL and SIRCEI:

- Certified EN54-23.
- Supply: 9 ÷ 60 Vdc.
- Operating temperature: -25°C a 70°C.
- High base.
- Protection IP65.
- Red color.
- Dimensions: Ø93 mm x 65 mm.
- Flash: White 1Hz (0,5 Hz selectable).
- Consumption: 10-25 mA according selection.

#### A1. SIRWAL:

- Wall device.
- W 2,4 - 7,5.

#### A2. SIRCEI:

- Ceiling device.
- C 3 - 7,5.

#### B. SIR-PIT:

- Supply: 9 - 60 Vdc.
- Consumption: 3 ÷ 15 mA according selection.
- Flash: 1 flash 1Hz.  
2 flashes 1Hz.  
Continuous 1Hz.
- Temperature: -20°C a 55°C.
- Protection: IP21C.
- Color: red.
- Red flash.

### **Voice alarm device:**

Device that activates a voice message with sound of fire alarm. The message is selectable from its internal list.

#### A. SIR24SC and SIR24SC+ BSCL:

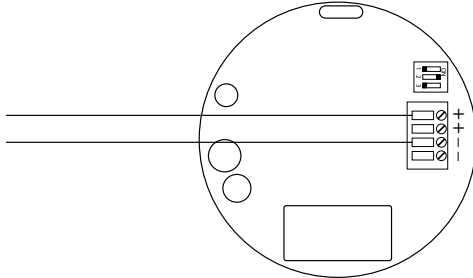
- Voltage: 18 ÷ 28 Vdc.
- Consumption: 4 ÷ 8 mA.
- Sound: 90/100 dB selectable.
- Several selectable alarm tones.
- Temperature: -10°C a 55°C.
- Protection: IP21C.
- Color: red.
- Dimensions: 106 x 106 x 91mm.

#### B. SIR24SC+BSLC:

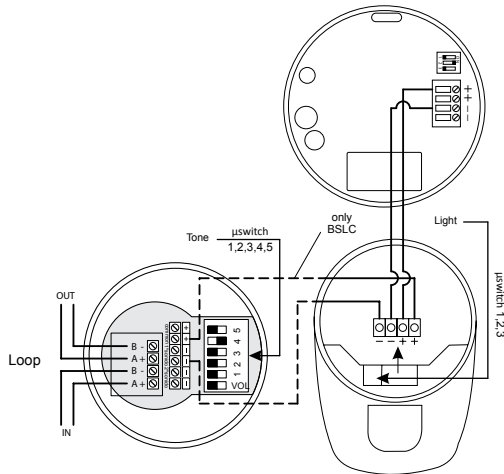
Set alarm voice with bright warning based device.

- Certified EN54-23.
- W 2,4 - 7,5.
- Consumption: 18 ÷ 28 mA.
- 1 Hz (0,5 Hz selectable).

### DIAGRAM FOR SIRWAL AND SIRCEI

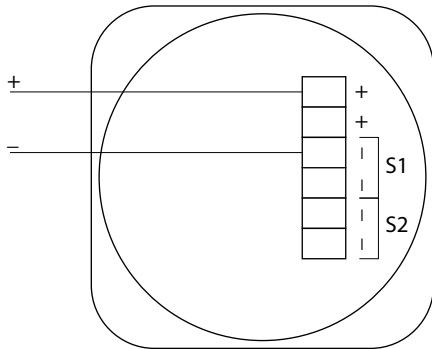


### DIAGRAM FOR SIRWAL AND SIRCEI WITH BSLC AND SIRAY



NOTE: They can be connected with the SIRAYBSLC by selecting low sound and light on this device and BSLC. The calculation of consumption points of the SIRAY+BSLC and this additional device shall be computed as a SIRAY+BSLC with selection of sound and maximum light.

### DIAGRAM FOR SIR24SC






External Power Supply (with batteries charge incorporated) for fire detection systems.


This equipment is specially recommended for properly feeding any fire detection device which requires external power supply.


It has two outputs:

- 30V output monitored and protected by a fuse, with four pins to connect easily.
- Fault Output ,dry contact, in fault status of system output is activated, so could be integrated with other equipment.

The system has three indication leds to show system status:

 RED (green): system operating through 110/230 V/AC power supply.

 BATTERY (green): system operating under batteries.

 FAULT (amber): system fault, general power supply fault or fault in the auxiliary battery supply.

There are 2 models available depending on the needs of the system:

- FAE: Maximum current output 1,7A (65 w).
- FAE 05: Maximum current output 4,7A (150 w).

General power supply connection is different in FAE from FAE 05. FAE has a power supply connector located on the right side of the box. FAE 05 power supply has a connector with three pins to connect general power supply.

External Power Supply is placed inside a metallic box of 326 x 360x 85 mm, which allow having additional space for installing batteries.

### TECHNICAL FEATURES

Power supply	110/230V 50-60Hz/AC
Consumption in standby	35 mA
Output voltage	29 ~ 29,5 V/AC
Output current	FAE: 1,7A FAE 05: 4,7A
Batteries charger	Yes
Humidity	20 - 95% HR
Temperature	-10°C to +50°C
Dimensions	363 x 331 x 96 mm
IP protection	IP 30
Standard	EN 54-4



Relay module for fire detection system.

This module consists of a relay that controls the output of a dry contact normally open (NO) normally closed (NC), unsupervised.

That provision allows you to control as typical application door electromagnets in conventional fire detection systems, either through the control panel supply or sources of external power supply (FAE).

The equipment is very simple and easy to install.

The board of the relay module is mounted on a plastic base, which carries some tapes that allow secure comfortably in the place that best suits, taking advantage of the available space in stations, power supplies (FAE), etc, according to the normal distribution of the wiring of the installation.

In addition, the relay module contains a safety fuse on the side of the dry contact.

There are three versions of modules based on the number of relays contained on the base:

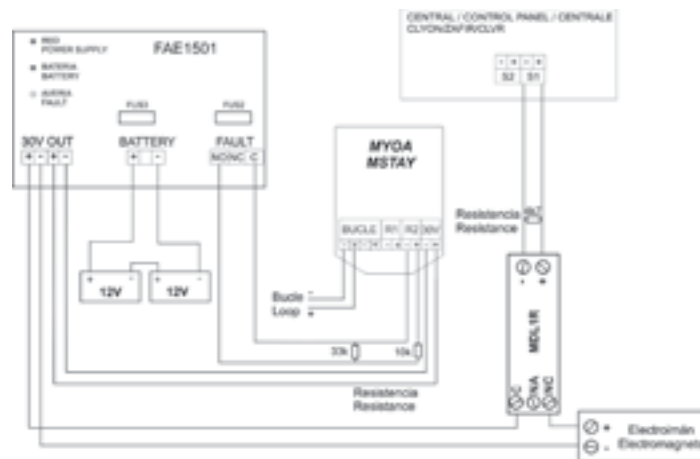
- MDL1R: 1 relay module.
- MDL2R: 2 relays module.
- MDL-8: 8 relays module

### Features:

- Relay with dry contact output NO-NC, not supervised.
- Simple installation by means of adhesive tapes, taking advantage of the space and following the normal distribution wiring.
- It contains safety fuse.

### TECHNICAL FEATURES

Supply	24 - 35V
Standby consumption	0 mA
Fuse	2 A
Consumption active	20 mA





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## Konvansiyonel Yangın Algılama Sistemi

**ÖNCÜ**  
GÜVENLİK SİSTEMLERİ A.Ş.



Automatic conventional fire detection and fire alarm control panel.

This control panel provides different versions to fit more accurately to the needs of each facility:

- CLVR 02Z: CLVR Control panel up to 2 zones.
- CLVR 04Z: CLVR Control panel up to 4 zones.
- CLVR 08Z: CLVR Control panel up to 8 zones.
- CLVR 12Z: CLVR Control panel up to 12 zones.

CLVR control panels features are common in all its models.

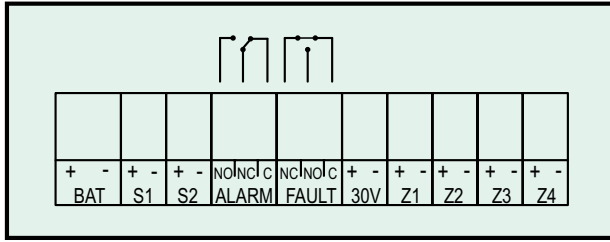
### Features:

- Control panels up to 12 zones for conventional detectors and call points use.
- 2 supervised sounder outputs, delayed from 0 to 10 minutes, and protected by a fuse.
- 1 alarm output through a dry contact NO/NC (normally open / normally closed).
- 1 fault output through a dry contact NO/NC (normally open / normally closed).
- 2 auxiliary outputs 30V/DC supervised and protected by a fuse to feed external (magnetic fire doors, sounders, etc).
- Available testing mode to facilitate the quick and easy verification of the sensors and call points.
- It allows to configure the open line, alarm detector and alarm call point threshold, to adjust to the operation with other detectors.
- It allows to configure the last detection zone as a supervision input of a external protection fire system with a fault indication.
- Metallic chest with frontal bolted door, 4 predrilled of 28 mm and one rectangular else of 140 x 20 mm for electric wiring and space for 2 batteries of 7Ah.
- RS485 MODBUS protocol on-demand.
- Possibility of software ON-LINE on PC using MODBUS functionality.
- CONTACTID on-demand.
- Certified according to EN 54-2 & EN 54-4 standards and CE mark .

### TECHNICAL FEATURES

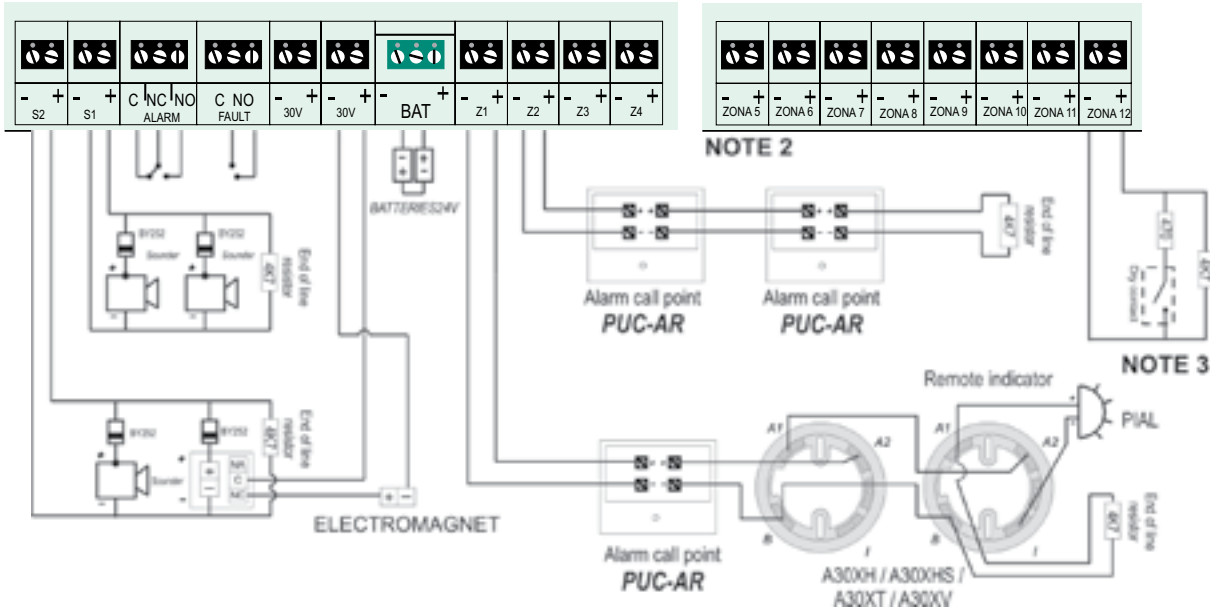
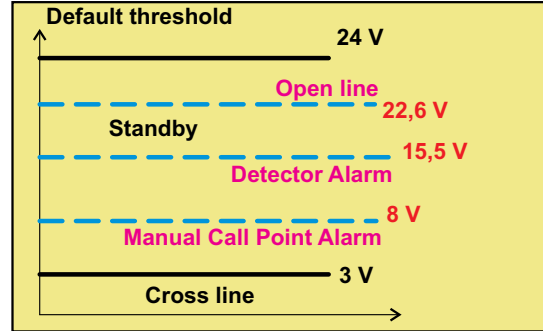
Input voltage	110/230VAC 50/60Hz	End of line capacitor	4 K7
Output voltage	21 V Nominal	Sounder output voltage	30 V/DC 2 A
Maximum consumption	70 VA to 230 V/AC	Fault output	Yes, dry contact
Batteries	2 x 12 V 7 Ah SLA	Environmental conditions	-10°C +50°C
Max. voltage 30V output	0,75A / 1,50A <sup>(1)</sup> AUTORESET	Size	363 x 331 x 96 mm
Battery charger	500 mA 27 V/DC 20°C	Weight (without batteries)	4,3 Kg
Devices per zone	32	Standar	EN 54-2, EN 54-4 & EN 12094-1
Control panel power supply	2,2 A	Sounder output fuse S1	1A / 1,85A <sup>(1)</sup> Autoreset
Maximum current per zone	2 mA (standby)	Sounder output fuse S2	1A / 0,75A <sup>(1)</sup> Autoreset

<sup>(1)</sup> CLVR08Z and CLVR12Z control panels



**NOTE 1**

\* Only CLVR02Z / CLVR04Z

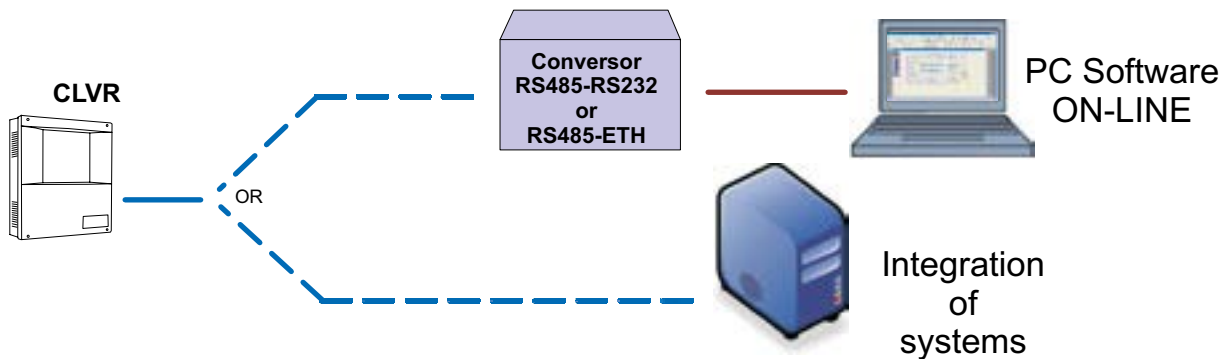


**NOTE 1:** Zones 3 and 4 are not functional in CLVR02Z control panel.

**NOTE 2:** This card contains 4 or 8 zones depending on the model (CLVR08Z/CLVR12Z).

**NOTE 3:** Last zone configured for external system monitoring.

Example of general wiring diagram



Example of connection for MODBUS functionality





Conventional heat detector for fire detection.

The detector consists of a sensitive element to temperature variations produced by any process of combustion.

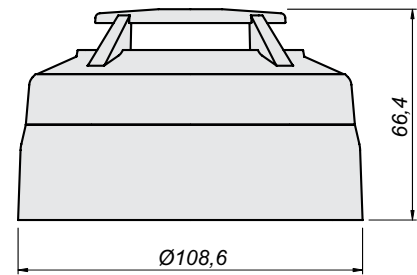
The value measured by this element is compared with a preset reference value which causes the detector to alarm status when the temperature reaches 55°C .

### Features:

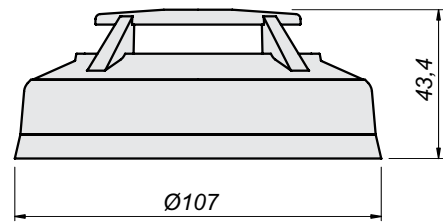
- Low section, total height less than 45 mm (including the base).
- Available with high base for electrical conduit of 20 mm.
- Alarm with two red LED, which makes easier the identification from any direction (360°).
- Possibility to connect a remote action indicator.
- Easy connection, without polarity.
- Detector and base with easy installation, interchangeable with the entire of range A30X, and manufactured in white heat-resistant ABS.
- According to EN 54-5 class A2, and CE mark, according to the European Regulation of Construction Products (UE) N°305/2011.

### TECHNICAL FEATURES

Supply	12 - 30V without polarity
Standby consumption	40 µA (at 18V)
Alarm consumption	40 mA (at 18V)
Activation signal	Two red led (360° visibility)
Remote indicator output	Yes
Humidity	20 - 95% RH
Temperature	-10°C +50°C
Sensitivity	According to EN 54-5 Class A2
IP protection	IP 20



High base assembly



Low base assembly



## A30XV Kombine Isı Dedektörü

# KONVANSİYONEL SİSTEM



Combined heat detector for fire detection.

The detector A30XV has a double heat detection system that measures the speed of increase in temperature (rate of rise heat function), both as their absolute value (heat function), and compares it with a measure of internal reference.

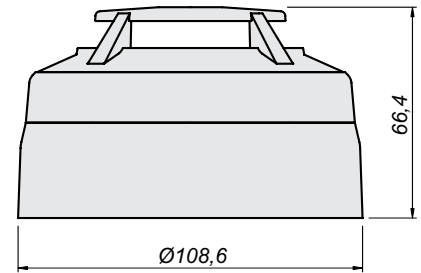
The rate of rise heat function allows to detect a fire in the early stages of their development, or, if this is very slow, is activated when the temperature reaches 55 °C.

### Features:

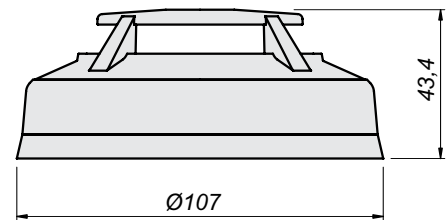
- Low section, total height less than 45 mm (including the base).
- Available with high base for electrical conduit of 20 mm.
- Alarm with two red LED, which makes easier the identification from any direction (360°).
- Possibility to connect a remote action indicator.
- Easy connection, without polarity.
- Detector and base with easy installation, interchangeable with the entire of range A30X, and manufactured in white heat-resistant ABS.
- According to EN 54-5 Class A2R (detectors with rate of rise heat function), and CE mark, according to the European Regulation of Construction Products (UE) N°305/2011.

### TECHNICAL FEATURES

Supply	12-30V without polarity
Standby consumption	40 µA (at 18V)
Alarm consumption	40 mA (at 18V)
Activation signal	Two red led (360° visibility)
Remote indicator output	Yes
Humidity	20 - 95% RH
Temperature	-10°C +50°C
Sensibility	According EN 54-5 Class A2R
IP protection	IP 20



High base assembly



Low base assembly



Conventional smoke detector for fire detection.

The A30BS detector is based on the Tyndall effect (light refraction in a dark chamber) for detection of fires which generates smoke (plastic, wood, paper, etc).

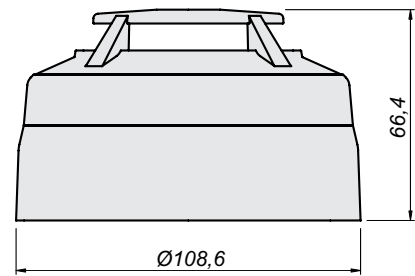
The A30BS detector (smoke-heat detector) also has a static heat element that sets the detector into an alarm mode when temperature reaches 55°C

### Features:

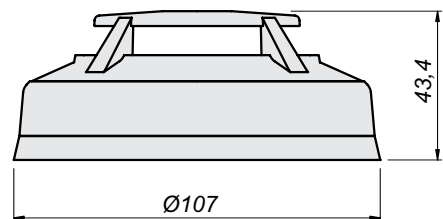
- Low section, total height less than 45 mm (including the base).
- Available with high base for electrical conduit of 20 mm.
- Alarm with two red LED, which makes easier the identification from any direction (360°).
- Possibility to connect a remote action indicator.
- Easy connection, without polarity.
- Double flash LED indicates a dirty status of the detector (fast signal indicates alarm and slow indicates maintenance required).
- Detector and base with easy installation, interchangeable with the entire of range A30BS, and manufactured in white heat-resistant ABS.
- According to EN 54-7 and mark according to European Regulation of Construction Products (UE) N°305/2011.

### ESPECIFICACIONES TÉCNICAS

Supply	12 - 30V without polarity
Standby consumption	60 µA (at 18V)
Alarm consumption	40 mA (at 18V)
Activation and dirt signal	Two red led (360° visibility)
Remote indicator output	Yes
Humidity	20 - 95% RH
Temperature	-10°C +50°C
Sensibility	According EN 54-7
IP protection	IP 40



High base assembly



Low base assembly



Manual call point for the conventional fire detection system.

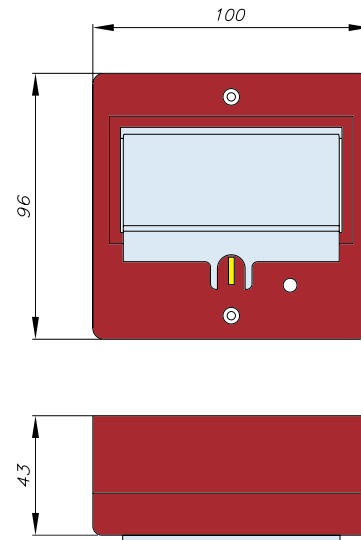
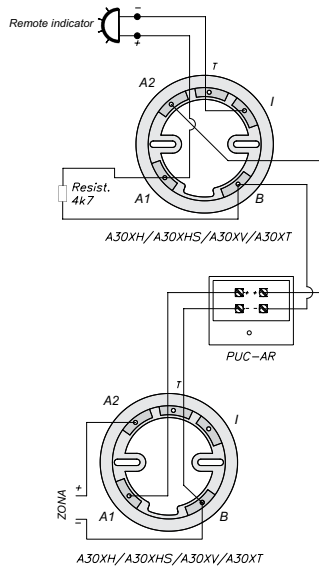
It has an indicator of action (red led) that illuminates in case of be manually operated (alarm).

### Features:

- Resettable call point by pushing yellow button on the front side.
- Transparent protector cover to avoid accidental false alarms.
- Immediate visual recognition of alarm status by the permanent activation of the LED, and the trigger of the yellow tab on the lower side of the activation face.
- According to EN 54-11 and CE mark according the European Regulation of Construction Products (UE) N°305/2011.

### ESPECIFICACIONES TÉCNICAS

Supply	24 - 35V without polarity
Standby consumption	0 mA
Alarm consumption	35 mA
Activation signal	Red led
Remote indicator output	No
Humidity	20 - 95% RH
Temperature	-10°C +50°C
Standard	EN 54-11
IP protection	IP 50





Remote action indicator of fire detection system.

The PIAL allows showing alarm status of sensors and modules of analogue systems, as well as of sensors of conventional systems.

Typical cases of use:

- Places where elements of the detection system are not visible, for example, inside false ceiling, in which the PIAL can be visibly situated on the lower part of the ceiling or near the wall.
- Reduced accessibility rooms or that is needed do a big inspection range for the identification of the element in alarm, for example in hotel rooms, where the PIAL can be situated

above the door frame of each room, making very easy its identification.

Permanent activation of the red LED indicates alarm status.

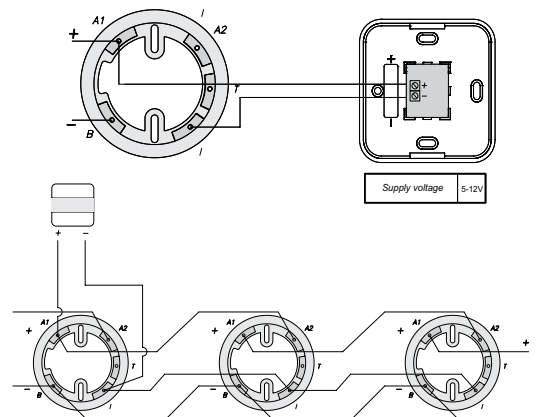
It is an element easy to install, both for its electrical wiring and its fixation, Furthermore, can be adapted to the conduit boxes and switchgear.

### Features:

- Alarm status can be identified in any perpendicular direction at its installation.
- Easy connection, with polarity.
- Can be adapted to the conduit boxes and switchgear.
- The red light is produced by two LEDs, increasing reliability against failure of any of them.
- Manufactured in heat-resistant ABS. Base and lid are white, red viewer.

### TECHNICAL FEATURES

Supply	5 - 12 V/DC with polarity
Standby consumption	0 mA
Alarm consumption	5 mA
Activation signal	Red led
Humidity	20 - 95% RH
Temperature	-10°C +50°C
IP protection	IP 50



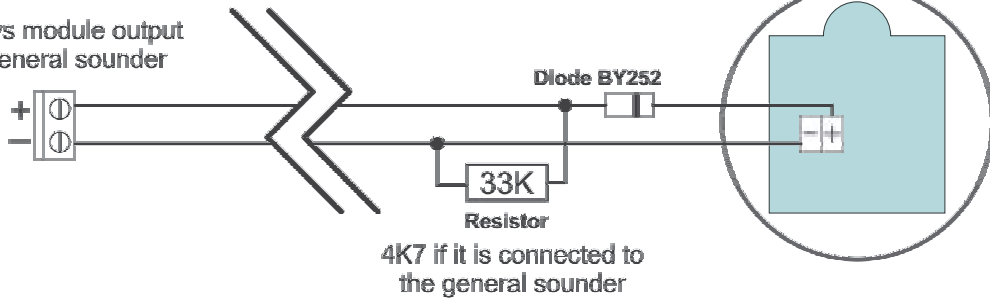
Wiring diagram



### 6" ALARM BELL CA6

Operating voltage	24 Vcc
Consumption	25 mA
Output volume	95 dBA at 1 meter 92 dBA at 3 meters
Operating temperature	-20°C to 60°C
Humidity	Max. 90% RH
Size	6" (150 mm x 56 mm)
Weight	764g
IP protection	IP33

Relays module output  
or general sounder

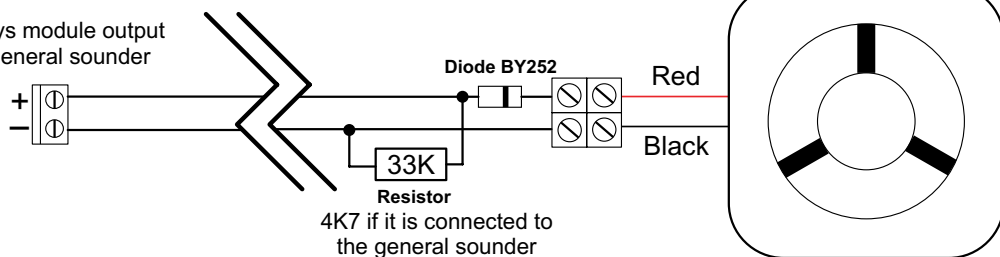


### SOUNDERS SIR24P and SIR24F

Material	Red P.V.C.
Operating voltage	30 Vdc
Consumption at 30 Vdc	70 mA
Power	85 dB
Operating temperature	5°C to 40°C
Dimensions	80 x 80 x 30 mm
With intermittent flash	Only SIR24F model



Relays module output  
or general sounder





List of indoor and outdoor sounders to connect directly to the sounder output of the control panels or relay modules.

### **SOUNDER SIR24B, SIR24BL, SIR24BZA and BSLC**

- Indoor and outdoor sounder made of red ABS.
- Great sound level. Low consumption.
- 32 selectable tones. Volume control.
- Automatic synchronization.
- SIR24B: Sounder.
- SIR24BL: Sounder with light.
- SIR24BZA: Sounder with high base.
- BSLC: Base with light, certified EN54-23.

Voltage range	9-28 Vdc
Consumption (using tone 3)	at 24 Vdc 16 mA
Output volume (tone 3)	at 24 Vdc 102 dB (A)
Operating temperature	-25°C to +70°C
Size	Ø95 x 91 mm (SIR24B) Ø95 x 135 mm (SIR24BL/SIR24BZA) Ø95 x 95 x 135 mm (SIR24B+BSLC)
IP protection	IP54-SIR24B IP65-SIR24BL IP65-SIR24BZA IP65-SIR24B+BSLC



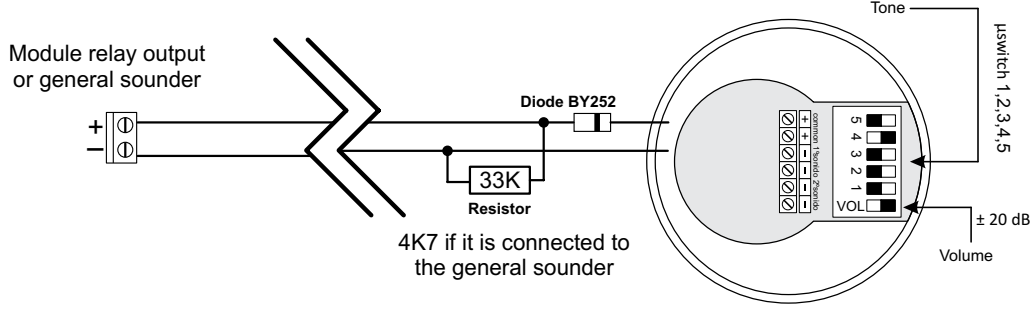
### **SOUNDER CAEPL and CAEPLH**

- Outdoor red sounder made of ABS plastic.
- Back cover to protect the PCB's.
- They work like power sounders at 24V.
- Piezobuzzer sounder.

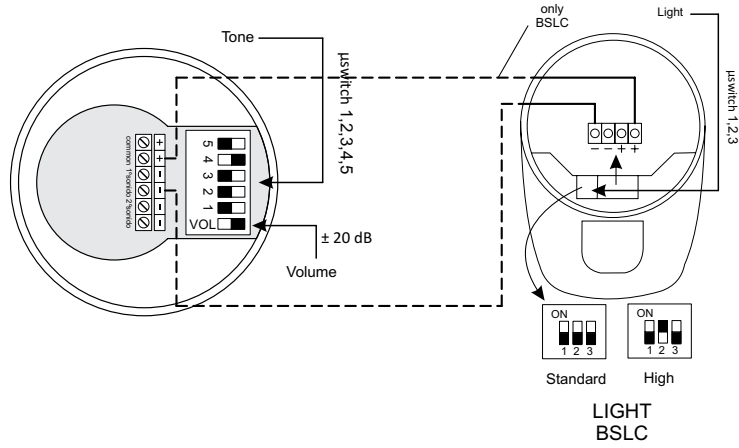
Activation	By supply activation
Supply	24 Vcc
Power	85 dB / 112 dB
Cycles	2 / 3 / 5 / 10 cycles
Timing by cycle	60 sec ON / 30 sec OFF
LEDs	2 LEDs of voidable option
Size	320 x 218 x 77 mm (CAEPLH) 220 x 315 x 70 mm (CAEPL)
Current / consumption	450 mA
IP protection	IP65 (sealed with silicone)



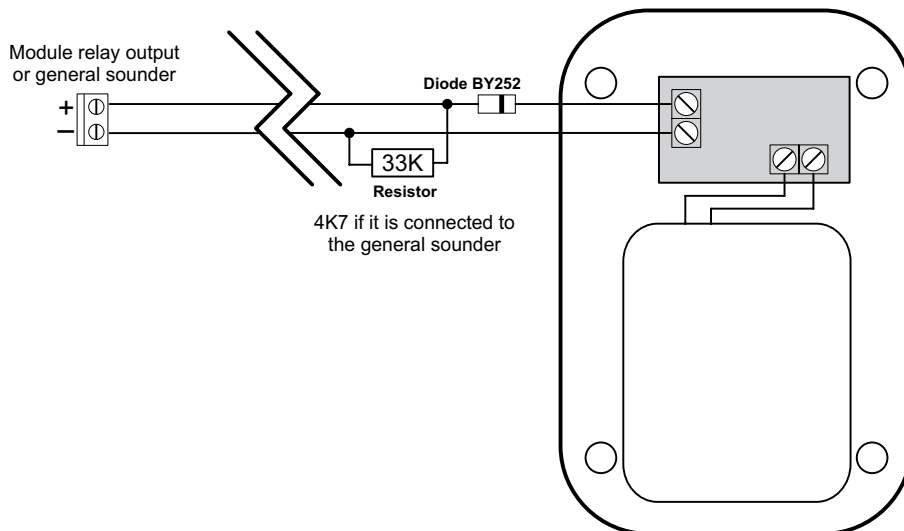
## SIR24B, SIR24BL AND SIR24BZA SOUNDERS



## SIR24B + BSLC SOUNDERS



## CAEPLAND CAEPLH SOUNDERS








External Power Supply (with batteries charge incorporated) for fire detection systems.


This equipment is specially recommended for properly feeding any fire detection device which requires external power supply.


It has two outputs:

- 30V output monitored and protected by a fuse, with four pins to connect easily.
- Fault Output ,dry contact, in fault status of system output is activated, so could be integrated with other equipment.

The system has three indication leds to show system status:

 RED (green): system operating through 110/230 V/AC power supply.

 BATTERY (green): system operating under batteries.

 FAULT (amber): system fault, general power supply fault or fault in the auxiliary battery supply.

There are 2 models available depending on the needs of the system:

- FAE: Maximum current output 1,7A (65 w).
- FAE 05: Maximum current output 4,7A (150 w).

General power supply connection is different in FAE from FAE 05. FAE has a power supply connector located on the right side of the box. FAE 05 power supply has a connector with three pins to connect general power supply.

External Power Supply is placed inside a metallic box of 326 x 360x 85 mm, which allow having additional space for installing batteries.

### TECHNICAL FEATURES

Power supply	110/230V 50-60Hz/AC
Consumption in standby	35 mA
Output voltage	29 ~ 29,5 V/AC
Output current	FAE: 1,7A FAE 05: 4,7A
Batteries charger	Yes
Humidity	20 - 95% HR
Temperature	-10°C to +50°C
Dimensions	363 x 331 x 96 mm
IP protection	IP 30
Standard	EN 54-4



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## Karbonmonoksit Algılama Sistemleri

**ÖNCÜ**  
GÜVENLİK SİSTEMLERİ A.Ş.

### **DESIGN GUIDE AND SELECTION OF CO SYSTEMS**



The basic purpose of a CO detection system, resides in ensuring a minimum conditions of sanitation of air in terms of carbon monoxide (CO) is concerned.

The main sources of CO are the engines of gasoline and diesel vehicles.

The basic applications are garages and tunnels, although not for this reason it can be used in other venues.

According to the rules, although the CO detection systems may arise technologically from fire detection systems, they are not collected by these.

By R/D 2367/1985 requirement, all CO detection systems must be certified according to standard UNE 23.300.

According to their installation, some useful references may include the following:

Buildings and garages: CTE Basic Document of Salubrity, Section Indoor quality air: DB HS 3.

It should be provided in mechanically ventilated car parks:

- With more than 5 places.
- Activation of the ventilation with concentration of 100 ppm.
- If there are employees, with 50 ppm.

Tunnels: *Real Decreto 635/2006* on minimum requirements for safety in tunnels.

Installation requirements:  
*Reglamento Electrónico de Baja Tensión (REBT).*

### **Recommendations and clarifications.**

- Max. coverage of each detector of 200 m<sup>2</sup>.
- Install the detectors between 1,5 and 2 m high.
- Use twisted and shielded wiring of 1,5 mm<sup>2</sup> in lengths under 600 m. If this length is exceeded, 2,5 mm<sup>2</sup>.



## CCO-1 Kontrol Paneli

# KARBONMONOKSİT ALGILAMA SİSTEMİ



COsensor control panels constitute an electronic equipment capable of detecting the presence of CO (Carbon Monoxide) at any moment in a local (parking, tunnel,...) and measuring its exact concentration, expressed in parts per million. The system is also capable of piloting an extraction of smoke (ventilation) or trigger an alarm, depending on the level of concentration of CO detected.

The components are integrated into a metal cabinet of 280 x 225 x 105 mm with metal door and equipped with adhesive cover with the corresponding light signs and acoustic signals, as well as the different buttons on the remote control.

In a CCO-1 control panel, the detection zone consists of a line of 2 wires through which the detectors feed. The CO control panels are manufactured in two versions: CCO110 supports up to 10 detectors in the zone and CCO115 supports up to 15 detectors.

The control panel shows the highest concentration of CO in the detection zone, activating ventilation when CO level exceeds a certain level (level of ventilation). When the control panel detects a monoxide level of greater than 300 ppm (alarm level) activates the alarm output. Both the level of ventilation, and the delay for the activation of the ventilation (ventilation delay) can be programmed through the control panel.

The control panel also allows the manual activation / deactivation of the ventilation.

CCO115 control panels support version DVB (dual ventilation and batteries), allowing them to control 2 independent outputs optimizing the functioning of the system of ventilation depending on the concentration of CO.

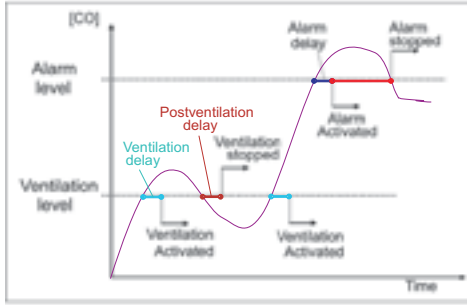
The interface with the user is achieved through a display consisting of three-digit of seven-segment and a four-key membrane keypad.

The system complies with UNE 23300 concerning the detection of carbon monoxide measurement and control system.

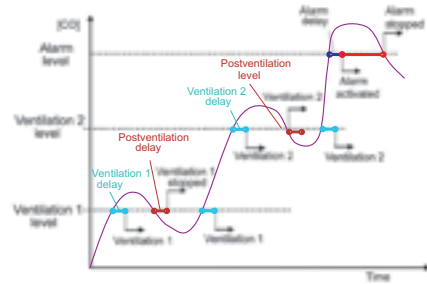
### TECHNICAL FEATURES

Power supply	230V/AC	Ventilation max voltage	2 A
Supply fuse	4 A	Ventilation output	Dry contact 2 A max.
Consumption without detectors	8 W	Max consumption of the system	14 W for CCO110 17 W for CCO115
Max. number of detectors por zona	10 for CCO110 15 for CCO115	Battery capacity (DVB)	2 X 12V 2 Ah SLA
Line voltage	26V	Batteries charger	500 mA 27V/DC 20°C
Zone fuse	2 A	Environmental conditions	-10°C +50°C 20%-95% RH
Alarm output voltage	22V	Size	282 x 227 x 105 mm
Max. alarm output current	0,8 A	Weight	3,35 Kg for CCO110
Alarm output fuse	Resettable		3,45 Kg for CCO115

CCO110 / CCO115



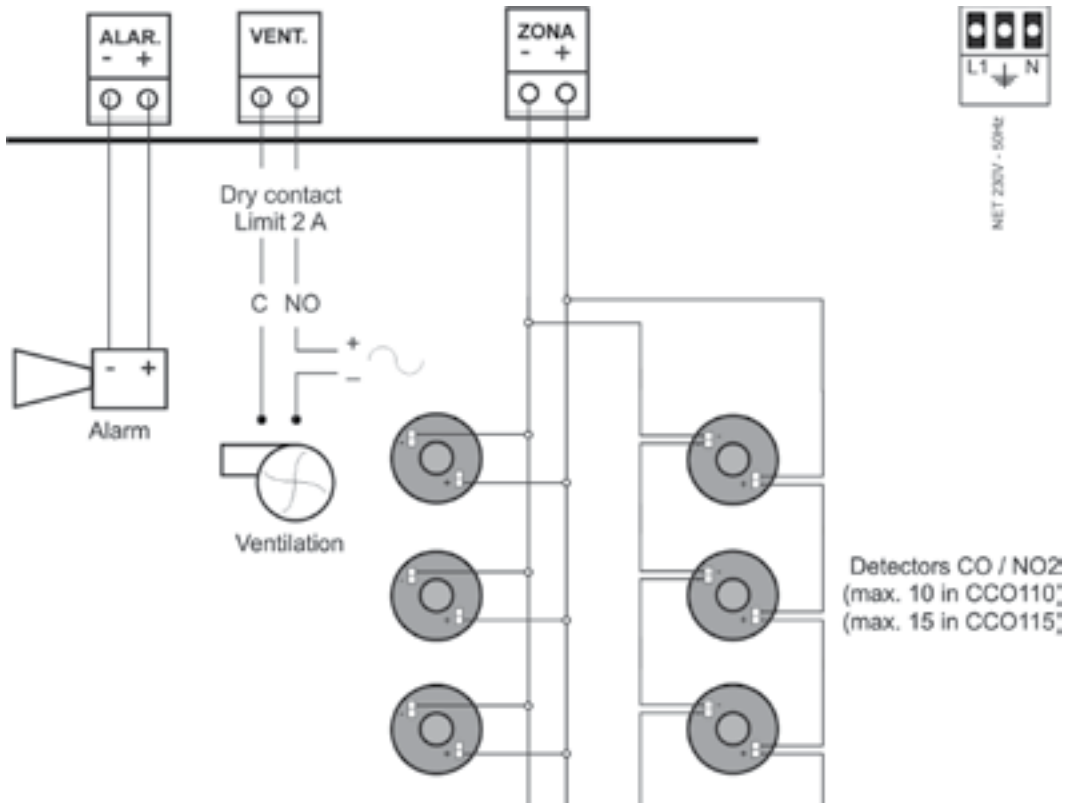
CCO110 / CCO115 option DBV



Parameter	Value	Margin
Ventilation level:	50 ppm	Programmable(20-150 ppm, in increments of 10 ppm)
Ventilation delay:	4 min	Programmable(1-9 min, in increments of 1 min )
Postventilation delay:	4 min	Fixed
Alarm level:	300 ppm	Fixed
Alarm delay:	15min	Fixed

Parameter	Value	Margin
Ventilation 1 level:	50 ppm	Fixed
Ventilation 1 delay:	4 min	Programmable (1 + 9 min)
Postventilation 1 delay:	4 min	Fixed
Ventilation 2 level:	100 ppm	Fixed
Ventilation 2 delay:	0 min	Fixed
Postventilation 2 delay:	0 min	Fixed
Alarm level:	200 ppm	Fixed
Alarm delay:	0 min	Fixed

Scheme of operation for control panels with 1 output ventilation



Structure by zone



## CCO1-4 Kontrol Paneli

# KARBONMONOKSİT ALGILAMA SİSTEMİ



COsensor CCO1-4 control panel constitute an electronic equipment capable of detecting the presence of carbon monoxide (CO) at a local (parking, workshop, tunnel,...) and to measure its exact concentration, expressed in parts per million. The system is capable of piloting an extraction of smoke (ventilation) or triggers an alarm, depending on the level of concentration of CO detected.

The components are integrated into a metal box of 418 x 324 x 120 mm with door metal and equipped with adhesive cover with the corresponding signs and acoustic signals, as well as the different buttons on the remote control.

COsensor CCO1-4 control panels have a structure by area (up to four zones and 22 detectors/zone) where each detection zone is formed by a line of 2-wire through which the detectors feed.

The control panel simultaneously displays the highest concentration of CO on each detection zone, activate the ventilation output when CO level exceeds a certain level (level of ventilation). When the control panel detects a level of greater than 300 ppm (alarm level) monoxide activates the alarm output. Both the level of ventilation and delays for the activation of outputs (delay of ventilation and alarm delay) can be programmed through the plant.

The control panel also allows the manual activation / deactivation of the ventilation, permanently or timed

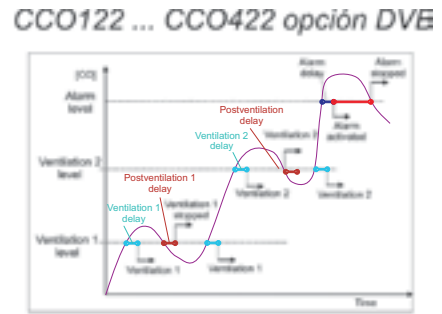
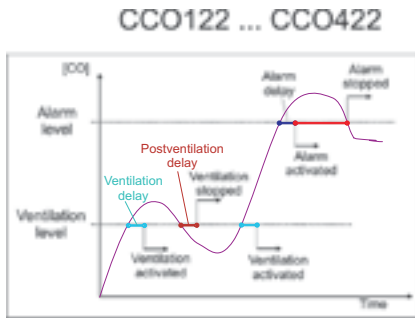
CCO115 control panels support version DVB (dual ventilation and batteries), allowing them to control 2 independent outputs optimizing the functioning of the system of ventilation depending on the concentration of CO.

The interface with the user is achieved through a liquid crystal display illuminated (for two or four lines, depending on the number of deployed areas) and a four-key membrane keypad.

The system complies with UNE 23300 concerning the detection of carbon monoxide measurement and control system.

### TECHNICAL FEATURES

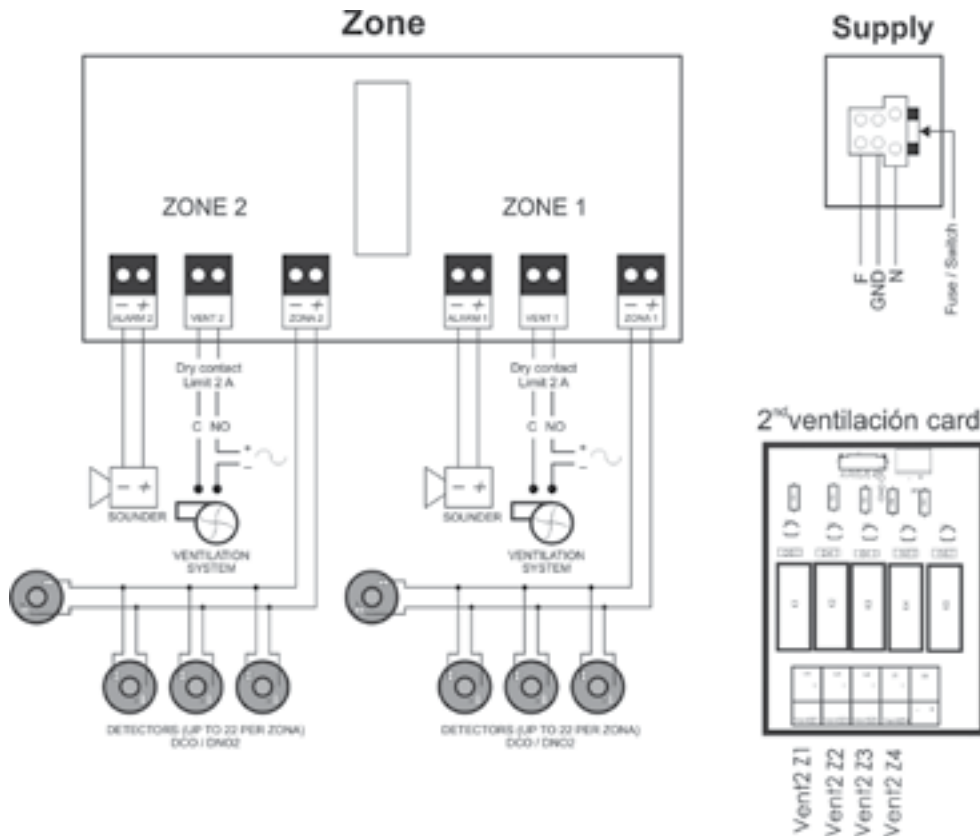
Power supply	230V/AC	Max. ventilation current	2 A
Supply fuse	4 A	Ventilation output	Dry contact 2 A max.
Consumption without detectors	6 W	Max. consumption of the system	62 W
Max. number of detector per zone	22 detectors	Battery capacity (DVB)	2 X 12V 7 Ah SLA
Line voltage	26V	Batteries charger	500 mA 27V/DC 20°C
Zone fuse	2 A	Environmental conditions	-10°C +50°C 20%-95% RH
Alarm output voltage	22V	Size	418 x 324 x 120 mm
Max output current of every alarm outputs	0,8 A	Weight	7,5Kg CCO122 to 9,1Kg CCO422
Alarm output fuse	Resettable		



Parameter	Value	Margin
Ventilation level:	50 ppm	Programmable (20-150 ppm)
Ventilation delay:	4 min	Programmable (1-9 min)
Postventilation delay:	4 min	Fixed
Alarm level:	300 ppm	Fixed
Alarm delay:	15 min	Programmable (10-30 min)

Parameter	Value	Margin
Ventilation 1 level:	50 ppm	Programmable (20 + 150 ppm)
Ventilation 1 delay:	4 min	Programmable (1 - 9 min)
Postventilation 1 delay:	4 min	Fixed
Ventilation 2 level:	200 ppm	Programmable (20 + 300 ppm) and > Ventilation 1 level
Ventilation 2 delay:	10 min	Programmable (1 + 30 min)
Postventilation delay:	4 min	Fixed
Alarm level:	300 ppm	Fixed
Alarm delay:	15 min	Programmable (10 + 30 min)

Note: The activation of the ventilation 2 involves the activation of the ventilation 1.



Structure per zone



Detector capable of measuring the concentration of CO (carbon monoxide) and transmit the reading to central control, for further processing.

In the COsensor CO detection system, detectors feed on and communicate with the control panel by a two-wire line. Each cycle of operation of the control panel takes approximately 1 minute. During the 99.7% of that time, control panel is limited to feed the detectors, and during the last 200 msec. each cycle is the reading of the concentration of CO.

The DCO detector stages are power supply, Sensor, Control and heating sensor, signal processing and signalling.

Recommended installation features:

- Coverage of each detector: 200 m<sup>2</sup>.
- **WARNING:** DCO detectors **HAVE POLARITY**.
- Detectors installed at height of 1,5 to 2 m.

It is recommended the use of cable with a minimum section of 1,5 mm<sup>2</sup> and, in a lineal distribution of detectors, the maximum length of this cable by zone should not exceed the 600m. In case the length of the cable by area exceeding 600 m a minimum cross section of 2.5 mm<sup>2</sup> cable should be used.

The detector is ready for installations with tube Ø16 mm.

The detectors have a led that indicates:

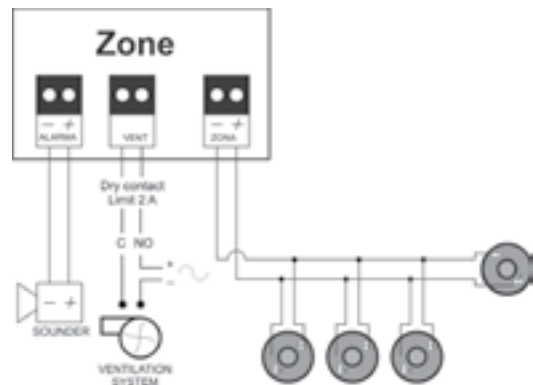
- GREEN LIGHT: It indicates the correct operation of the generation of pulses of the heating element and the sensor section.
- RED LIGHT: Indicates greater than 50 ppm CO concentration.

In accordance with UNE 23300 recommended to change sensor every 5 years.

The system complies with UNE 23300 concerning the detection of carbon monoxide measurement and control systems.

### TECHNICAL FEATURES

Supply	13 - 28V with polarity
Reset voltage	< 12,5V
Alarm consumption	40 mA (at 18V)
Max. current in standby	High period: 45 mA Low period: 17 mA
Max. current in alarm	High period: 58 mA Low period: 30 mA
Size	Diameter: 115 mm High: 75 mm







Detector capable of measuring the concentration of NO<sub>2</sub> (nitrogen dioxide) and transmit the reading to central control, for further processing.

The detector is connected at the control panel detection of carbon monoxide Cosensor as if it were another CO detector.

The measure that makes this control panel of the detector DNO<sub>2</sub> transforms it into an equivalent reading of ppm of CO. In this way NO<sub>2</sub> and CO detectors can be installed in the same line of detection.

For a measurement of 2 ppm of NO<sub>2</sub>, the control panel computes an equivalent of 50 ppm of CO. Similarly, for a 15 ppm of NO<sub>2</sub>, control panel computes equivalent of 300 ppm.

NO<sub>2</sub> detectors are made of blue plastic.

Recommended installation features:

- Coverage of each detector: 200 m<sup>2</sup>.
- **WARNING:** DCO detectors **HAVE POLARITY**.
- Detectors installed at height of 1,5 to 2 m.

It is recommended the use of cable with a minimum section of 1,5 mm<sup>2</sup> and, in a lineal distribution of detectors, the maximum length of this cable by zone should not exceed the 600m. In case the length of the cable by area exceeding 600 m a minimum cross section of 2.5 mm<sup>2</sup> cable should be used.

The detector is ready for installations with tube Ø16 mm.

The detectors have a led that indicates:

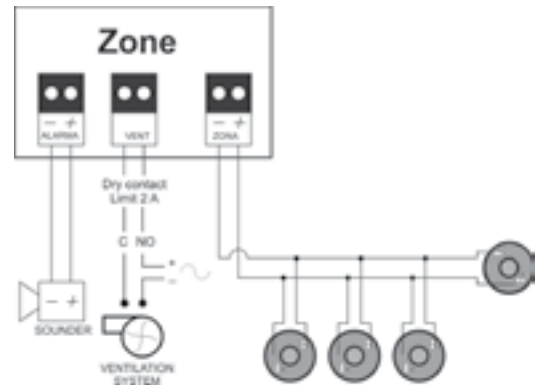
- EN LIGHT: Indicates the correct operation of the detector.
- RED LIGHT: Indicates greater than 2 ppm NO<sub>2</sub> concentration (50 ppm CO).

In accordance with UNE 23300 recommended to change sensor every 4 years.

The system complies with UNE 23300 concerning the detection of carbon monoxide measurement and control systems.

### TECHNICAL FEATURES

Supply	13 - 28V with polarity
Reset voltage	< 12,5V
Alarm consumption	40 mA (at 18V)
Max. current in standby	High period: 45 mA Low period: 17 mA
Max. current in alarm	High period: 58 mA Low period: 30 mA
Size	Diameter: 115 mm High: 75 mm





## CO / NO<sub>2</sub> Sirenleri

# KARBONMONOKSİT ALGILAMA SİSTEMİ

When the CO / NO<sub>2</sub> concentration accumulated in the compound is sufficiently high as to be dangerous to people, CO sensor detection control panels activate alarm output.

The function of these sounders is warning its occupants so they leave it and will not come until the alarm stops.

Different models are shown below:



Sign to be directly connected to the output of the control panels or relay modules. With indication adhesive.

### **LLHCO LIGHT SIGN**

Operating voltage	12-30 Vdc
Consumption	80mA at 30Vdc
Power	80dB at 1m
IP protection	IP40
Standard	EN 60598, EN 60598-2-1, EN 61547, EN 55015
Temperature	0 at 40°C
Humidity	95% RH
Size	262x100x51 mm
Weight	340gr
Jumper	Fixed / flashing lighting Active / no active buzzer



### **SIR24B, SIR24BL and SIR24BZA SOUNDER**

- Output and indoor sounder made of red ABS plastic.
- High volume sound. Low consumption.
- 32 tones. Volume control.
- Automatic synchronization.
- SIR24B: Sounder.
- SIR24BL: Sounder with light.
- SIR24BZA: Sounder with high base.



Voltage range	9-28 Vdc
Consumption (using tone 3)	at 24 Vdc 16 mA
Output volume (tone 3)	at 24 Vdc 102 dB (A)
Operating temperature	-25°C at +70°C
Size	Ø95 x 91 mm Ø95 x 107 mm (SIR24BL/SIR24BZA)
IP protection	IP54-SIR24B IP65-SIR24BL IP65-SIR24BZA

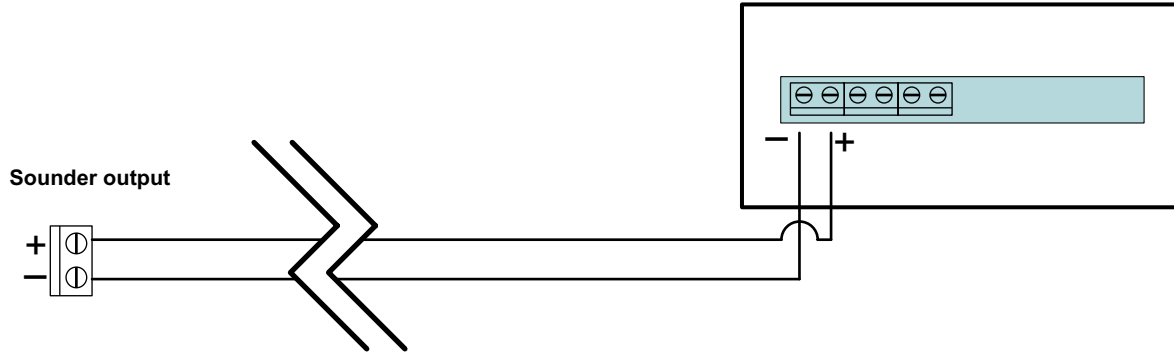


### **SIR24P and SIR24F SOUNDER**

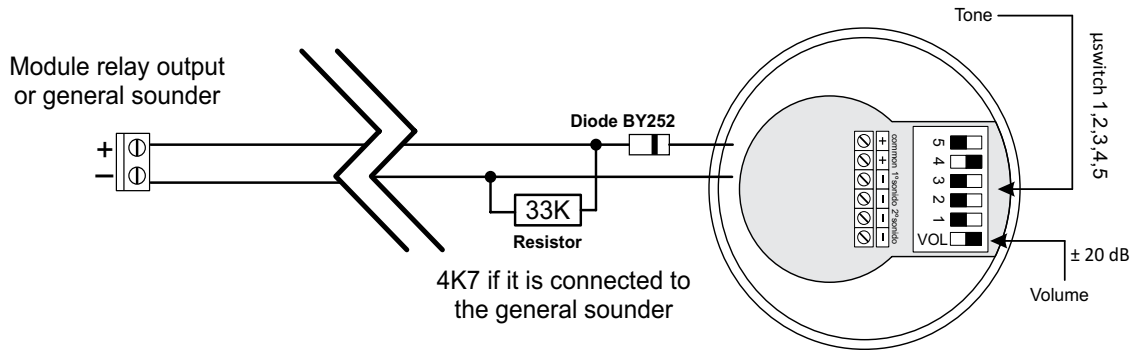
Material	Red P.V.C.
Operating voltage	30 Vdc
Consumption at 30 Vdc	70 mA
Power	85 dB
Operating temperature	5°C to 40°C
Size	80 x 80 x 30 mm
With intermittent flash	Only SIR24F model



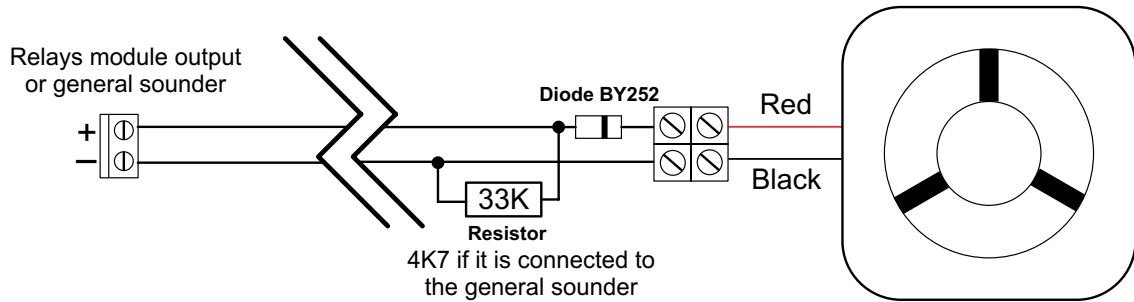
### LLHCO LIGHT SIGN



### SIR24B, SIR24BL AND SIR24BZA SOUNDERS



### SIR24P AND SIR24F SOUNDERS





**cofem**, s.a.  
1973



## Ev Tipi Gaz Algılama Sistemleri

**ÖNCÜ**  
GÜVENLİK SİSTEMLERİ A.Ş.



### **SMOKE HOME DETECTOR**

Autonomous smoke detector for fire detection, with acoustic alarm.

Smoke sensibility	0,08~0,15 dB/m
Temperature sensibility	57°C(model with temperature sensor)
Current in standby	8 µA
Current in alarm	15 mA
Temperature	0°C to 50°C
Humidity	0 a 95% HR
Acoustic alarm level	85 dB / 3 m
Dimensions	Ø105 x 30 mm

Installation requirements:

- Centre of roof (do not install less than 10 cm from the walls).

Minimum installation recommended:

- At least 2 detectors by house.
- At least 1 detector by floor.
- Separator hallway outside the open bedrooms.
- Bedrooms normally closed.
- On the roof before a stair.
- Living room, dinner room, attic, etc.

### **HOME GAS DETECTOR**

Autonomous gas detector with acoustic alarm, capable of activate a gas shut off to avoid danger.



Supply	220V AC with battery of 9V
Sensibility	10% LEL
Consumption in alarm	≤1,7 W
Consumption in standby	≤0,5 W
Temperature	-10°C~50°C
Humidity	<95% HR
Acoustic level	85 dB / 3m

Gas type detected:

1. LPG (Butane, Propane) used in standard and little bottles .
2. City gas and natural gas.

Installation: See installation notes of the Keeper diagram.

### **GAS SHUT OFF ACTUATOR**

Electromecanic valve for automatic shut off of the gas supply.



Size	100 x 90 x 70 mm
Nominal voltage	12 Vdc
Operating voltage	8Vdc - 16Vdc
Operating power	0,24W - 4,5W - 10W
Consumption	20mA - 350mA - 1000mA
Torque	10 - 30 - 40 Kg/cm
Temperature	-20°C ~ +50°C
Humidity	<95% RH



## Standalone CO ve Gaz Algılama Detektörleri

## EV TİPİ ALGILAMA



Range of gas detectors for domestic, autonomous, use with possibility of connection to the supply (220-230V) or 12VDC, with operating indicator, that emits an optical and acoustic in case of alarm.

**-Keeper CO:** made of black ABS plastic to detect carbon monoxide.

CO (carbon monoxide) is a highly toxic gas produced basically by any type of poor combustion, in addition to by internal combustion engines.

Keeper CO is especially suitable for the detection of CO in places such as garages, boilers rooms, kitchens, living quarters with heaters or gas stoves, etc.

**-Keeper GAS:** made of grey ABS plastic to detect natural gas, methane, propane and butane.

The escaping gas or shut-off flame in boilers, kitchens, living areas with gas stoves or heaters, etc, can cause a high concentration of combustible gases indoors, with the danger of explosion that it entails.

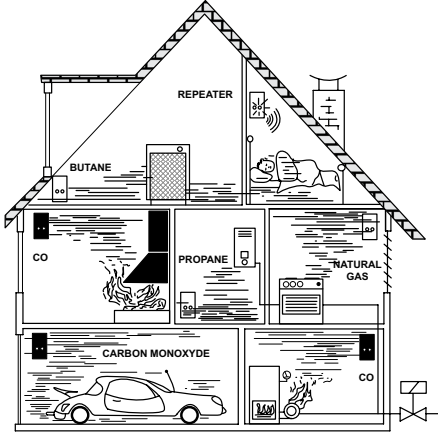
Keeper GAS is particularly suitable for the detection of combustible gases common in places such as those mentioned above.

### **Features:**

- Domestic detectors fed by supply (220-230V) or 12V DC.
- Operating indicator (green led), optical signal (red led) and acoustic of alarm.
- It incorporates a heat sensor that is activated at a temperature of 84°C.
- Detector with relay option allows the connection with a repeater unit (alarm distance), with a shut off of gas supply control system, or a control panel alarm.
- Particularly suitable for garages (only Keeper CO),boilers rooms, kitchens,areas with gas stoves or heaters, etc.
- Design according european normative EN 50194.
- Size: 140,5 x 73 x 48 mm.

### *TECHNICAL FEATURES*

Maximum consumption	3W
Maximum strength in output of 9VDC	100 mA
Standard	EN 50194 type A
Size	140,5 x 73 x 48
Humidity	20 - 95% RH
Operating temperature	-10°C to 50°C
Aproximate cover	25 m <sup>2</sup>
Sensor life	5 years
Lower explosivity limit (LEL) - Keeper GAS	10 %
Detection sensibility - Keeper CO	300 ppm



## MODELS

### DAG and DACO:

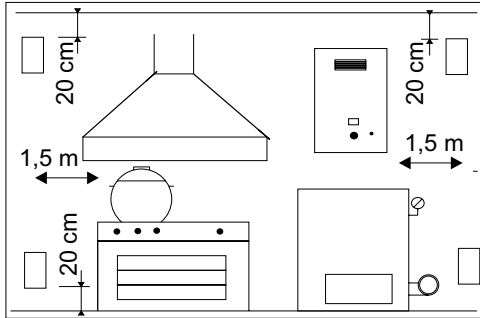
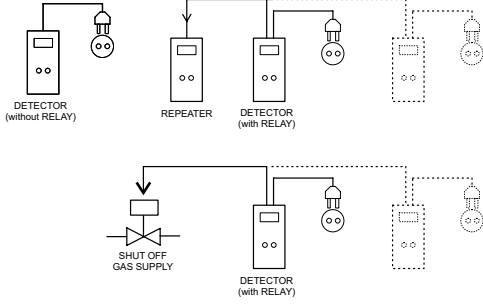
With supply at 230VAC and 9Vdc output.

### DAGR and DACOR:

With supply at 230VAC and 9Vdc output and relay with dry contact NO/NC for manoeuvres.

### DAGR12 and DACOR12:

With supply at 12Vdc and relay with dry contact NO/NC for manoeuvres.



## INSTALLATION NOTES

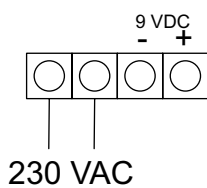
Always more than 1,5 m from sources of heat, smoke and vapors.

**Keeper CO:** 20cm from the roof.

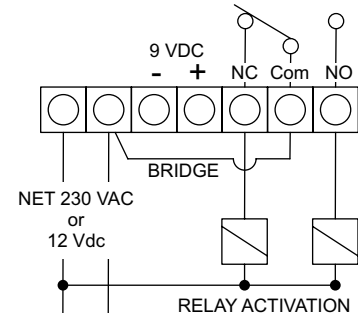
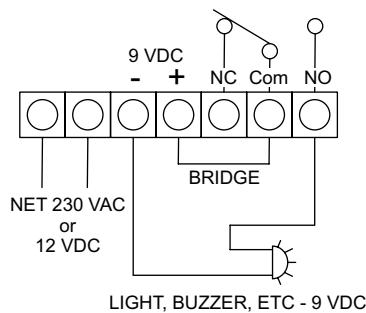
**Keeper GAS:**

- Light gases (city gas, natural gas, etc.) at 20 cm from the roof.
- Hard gases (propane, butane) at 20 cm from the roof.

Wiring diagram for 230VAC supply



Wiring diagram with relays for 230VAC or 23Vdc supply (according to model)





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