cofem
1973

TECHNICAL CATALOGUE

CO & NO_2 DETECTION
HOME DETECTION
EXTINGUISHING SYSTEMS

www.cofem.com

CO & NO_2 detection

Home detection

Extinguishing systems

Simplified CO control panel
MCO

Automatic conventional COsensor control panel with carbon monoxide (CO) and nitrogen dioxide (NO_2) diffusion sensors

This control panel provides the MiniCO120 (Ref. MCO120) and MiniCO120DVB (Ref. MCO120DVB) references with 1 zone with 20 detectors capacity.

The model ending in "DVB" refers to the fact that it has double ventilation and batteries charger.

They are particularly suitable for parking or areas that need only 1 ventilation zone or installation of a few sensors in it.

The control panel displays the maximum concentration of CO in the detection zone, activating the ventilation and alarm when a specific concentration is reached after expiry of the set delay.

It has dry contact outputs for ventilation, an auxiliary 30Vdc output and an alarm dry contact output.

The system works with CO sensor ("SCO" reference) and NO_2 sensors ("SDN" reference) in the same area.

NO_2 sensors transform measures of NO_2 concentration in an equivalent measure of CO, and shown it in the display as a single concentration of CO, activating the ventilation and alarm when established CO levels are reached.

The control panel allows manual activation and deactivation of ventilation.

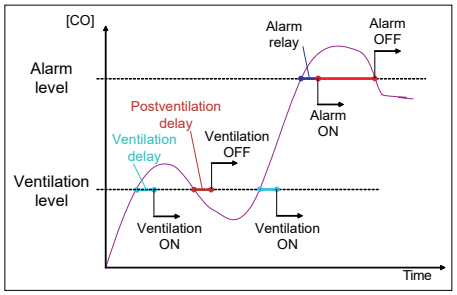
The equipment is designed for using diffusion sensors calibrated at factory for operation throughout the useful life of their sensors, and UNE 23300 certified.

Features:

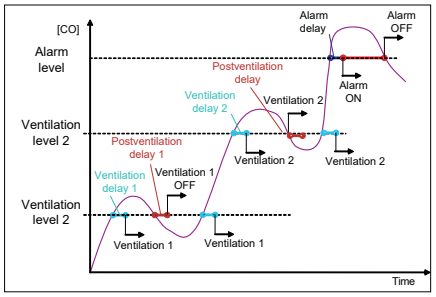
- Control panel of 1 ventilation zone with diffusion sensor brand COsensor model SCO (CO sensor) and SDN (NO2 sensor).
- Dry contact output (COM / NA) for ventilation 1 and ventilation 2 (DVB model only).
- 30Vdc 0,5A output.
- Dry contact alarm output.
- Space for 2x12 Vdc 2 Ah batteries (DVB model only).
- Display 3-digit, 7-segment.
- Dimensions: 248 x 240 x 115 mm.
- UNE 23300 certified.

TECHNICAL FEATURES			
Power supply	110/230Vac 50/60Hz	30Vdc intensity alarm output	0,5A
Maximum consumption	20VA at 230V/AC	30Vdc output fuse	Resettable
Batteries (only DVB model)	2 x 12V 2Ah SLA	Zone output voltage	26Vdc
Power supply fuse	4A	Zone fuse	2A
Battery charger	350mA 27V/DC 20°C	Dry contact fault	30Vdc 1A
Sensors by zone	20 CO / NO_2	Dry contact alarm	30Vdc 1A
	(MCO120 / MCO120DVB)	Environmental conditions	-10°C +50°C
IP protection	IP30	Dimensions	248 x 240 x 115mm
Dry contact ventilation	230Vac / 30Vdc 1A	Weight (without batteries)	2kg
		Standard	UNE 23300

MiniCO120



MiniCO120DVB

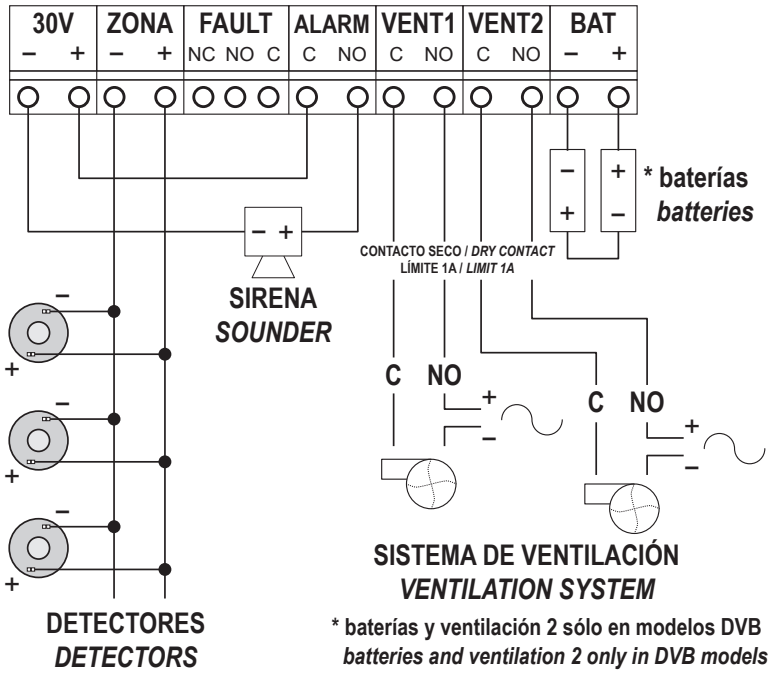


Parameter	*Value*	*Range*
Ventilation level	50 ppm	10 ÷ 290 ppm
Ventilation delay	4 min	1 ÷ 10 min
Ventilation OFF delay	4 min	Fixed
Alarm level	200 ppm	20 ÷ 30 ppm
Alarm delay	1 min	1 ÷ 10 min
Alarm OFF delay	1 min	Fixed

Parameter	*Value*	*Range*
Ventilation level 1	50 ppm	10 ÷ 280 ppm
Ventilation delay 1	4 min	1 ÷ 10 min
Ventilation OFF delay 1	4 min	Fixed
Ventilation level 2	100 ppm	20 ÷ 290 ppm
Ventilation delay 2	4 min	1 ÷ 10 min
Ventilation OFF delay 2	4 min	Fixed
Alarm level	200 ppm	30 ÷ 300 ppm
Alarm delay	1 min	1 ÷ 10 min
Alarm OFF delay	1 min	Fixed

Scheme of operation for control panels with ventilation

NOTE: Increments of time in minutes and concentration of toxic gases in 10 ppm



Wiring diagram

2-4 zones CO control panel

ZCO

Addressable COsensor control panel for carbon monoxide (CO) and dioxide nitrogen (NO2) diffusion sensors designed with EN 50545-1 and UNE 23300 certified.

It has the following models ZafirCO2 (Ref. ZCO2), ZafirCO3 (Ref. ZCO3) and ZafirCO4 (Ref. ZCO4). They correspond with 2, 3 or 4 zones and up to 25 CO and/or 25 NO2 sensors by zone. These models have DVB version (Double Ventilation and Batteries).

The COsensor ZafirCO control panel allows setting the activation concentration for ventilation level 1, 2 and alarm, as well as the delays for the activation and delays for the stop of these levels/alarm.

It has independent dry contact outputs per zone for each level of ventilation and alarm, as well as general fault output and auxiliary supply 30 Vdc.

The control panel has a maintenance mode for easy testing the operation of sensors by watching the flashing LEDs of the sensors when they face to the test gas.

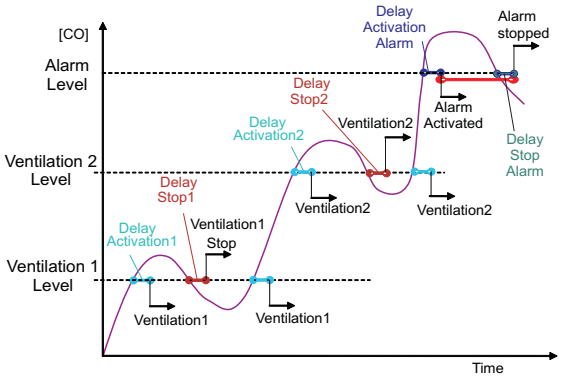
The control panel can identify all sensors at the installation by their programming number. The auto configuration feature of the control panel will automatically detect all sensors and display a summary in the display. Confirming this information, control panel goes directly into "work" mode.

The philosophy and operation mode of the equipment is designed according to European standard EN 50545-1, using diffusion sensors and factory calibration for operation during the operational life of the sensors, and UNE 23300 certified.

Features:

- Control panel up to 4 ventilation zones with diffusion sensors brand COsensor model SCO (CO sensor) and SDN (NO2 sensor).
- Dry contact output (COM/NO) Ventilation 1, Ventilation 2 (DVB models only) and alarm.
- Fault dry contact output (COM/NO/NC).
- Auxiliary 30 Vdc 1A power output.
- Concentration measures averaged according to EN 50545-1 up to 60 minutes.
- Ventilation level 1, ventilation level 2 (models DVB) and alarm selectable from 5 to 300 ppm of CO and from 0,1 to 30 ppm of NO2.
- Delay time for activation and delay time to stop of ventilation 1 and ventilation 2 (models DVB), selectable between 0 and 10 minutes.
- Delay time for activation and delay time to stop of the alarm selectable between 0 and 5 minutes.
- Maintenance mode to check operation of sensors.
- System with auto configuration functionality.
- Space for batteries 2 x 12 Vdc 7 Ah (DVB models only).
- Backlit LCD Display 4 lines and 40 characters.
- Dimensions: 418 x 324 x 150 mm.
- Designed according to European standard EN 50545-1.
- UNE 23300 Certified.

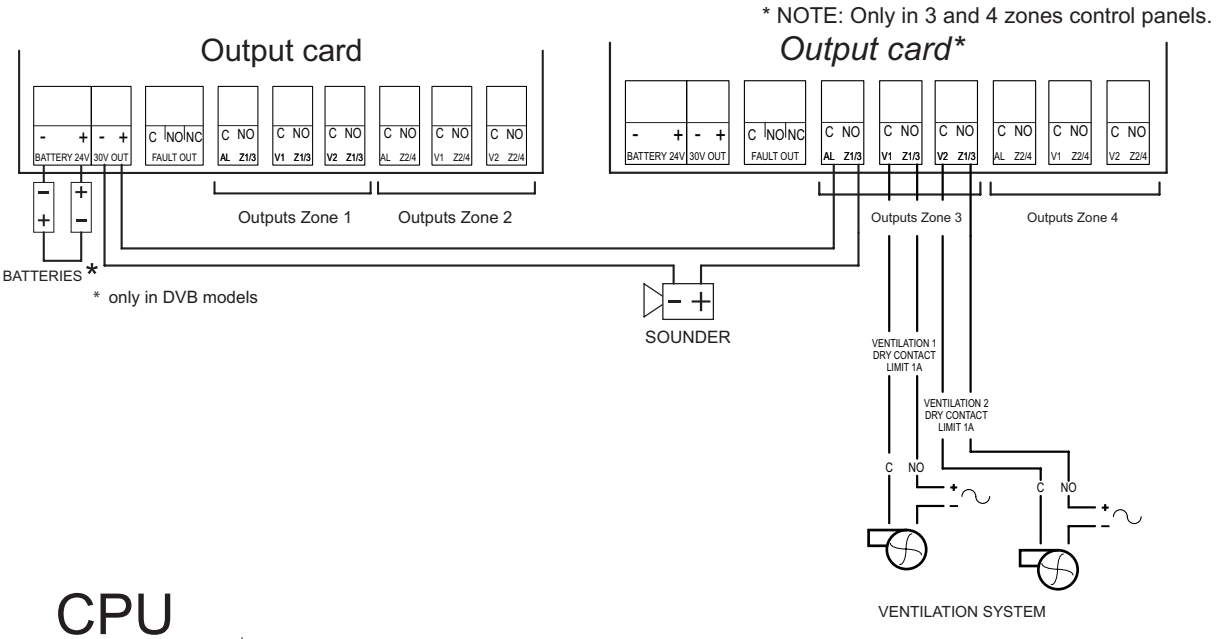
TECHNICAL FEATURES			
Supply voltage	110/230Vac 50/60Hz	Max. current per zone	150mA / 26 at 32Vdc
Max. consumption	70VA at 230V/AC	Dry contact ventilation	230Vac / 30Vdc 1A
Control panel power supply	2,5A	Alarm dry contact	230Vac / 30Vdc 1A
Batteries (only DVB model)	2 x 12V 7Ah SLA	Fault dry contact	230Vac / 30Vdc 1A
Supply fuse	4A	Environmental conditions	-10°C +50°C
Battery charger	500mA 27V/DC 20°C	Dimensions	425x330x135mm
Sensors per zone	25 CO and/or 25 NO_2	Weight (without batteries)	7kg
IP protection	IP30	Standard	EN 50545-1 & UNE 23300
		Max. current 30V output	1A

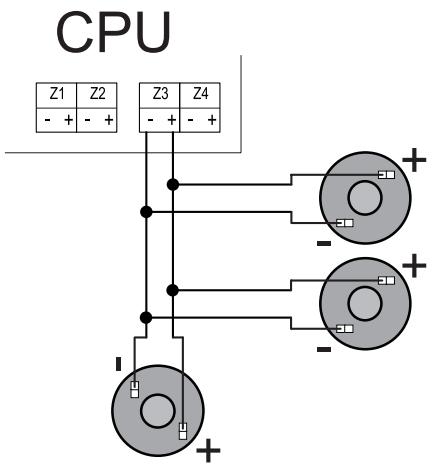


Parameter	*Value*	*Margin*
Ventilation 1 level	50 ppm (CO) 1 ppm (NO_2)	5-300 ppm (CO) 0,1-30 ppm (NO_2)
Vent. 1 activation delay	4 min	0-10 min
Vent. 1 stop delay	4 min	0-10 min
Vent. 2 level	100 ppm (CO) 3 ppm (NO_2)	Vent1-300 ppm (CO) Vent1-30 ppm
Vent. 2 activation delay	4 min	0-10 min
Vent. 2 stop delay	4 min	0-10 min
Alarm level	200 ppm (CO) 5 ppm (NO_2)	Vent1/vent2-300 ppm (CO) Vent1/vent2-30 ppm
Alarm activation delay	1 min	0-5 min
Alarm stop delay	1 min	0-5 min
Concentration average	0 min (instantaneous)	0-60 min

NOTE: Don't have in consideration ventilation 2 in models of only 1 ventilation

Operation scheme of DVB control panels





NOTE: Scheme applicable only to zone 3.
The other zones are connected in the same way.
Control panels with other capacities should not have some connectors.

Connection scheme for 4 zones DVB control panel

Carbon monoxide sensor
SCO

Carbon monoxide (CO) diffusion sensor for COsensor system designed according to the European standard EN 50545-1 and UNE 23300 certified.

The sensor is designed to work with all models of COsensor control panels, both conventional (CCO and MiniCO models) and addressable (ZafirCO). In this way, when control panel start up , the sensor recognizes control panel and adapts its communication.

The sensor is based on electrochemical technology that allows adequately answer to CO concentration in the environment, and send this information to the control panel. Then, control panel active properly activate ventilation and alarms.

The sensor has a red LED red that flashes every 10 seconds in normal operation. Connected with conventional control panel, it makes double flash to indicate that it has reached a concentration of 50 ppm of CO, and fix light when the concentration reaches 200 ppm of CO. Connected with addressable control panel, it makes double flash when the concentration read by the sensor is equal or higher than the ventilation level programmed at control panel, and fixed light when concentration read by the sensor is equal or higher than the alarm level programmed at control panel.

CO sensors must be distributed at the installation in accordance with standards and/or regulation. A recommendable coverage for these devices are between 200 and 300 m², and place in a height between 1,5 and 2 m from the floor.

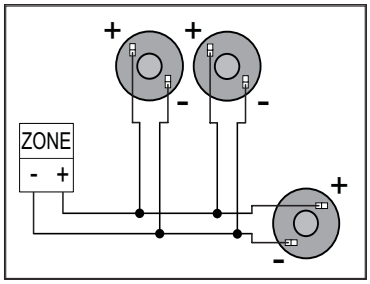
In addressable control panels with maintenance mode active, it can be easily checked the operation of sensors by observing flashing of sensor led when faces to test gas.

The philosophy and operation mode of the equipment is designed according to European standard EN 50545-1, using diffusion sensors and factory calibration for operation during the operational life of the sensors, and UNE 23300 certified.

Features:

- Compatible with conventional control panel CCO and MiniCO models and addressable control panel ZafirCO.
- The sensor base support installations with 16 mm diameter pipe.
- It has red LED which identifies the sensor communication and concentrations of ventilations and alarm.
- Connected with addressable control panels, it supports maintenance mode to check the status of the sensor when face to test gas.
- It contains programming number to allow identification of sensor at addressable control panel.
- Designed according to European standard EN 50545-1.
- UNE 23300 certified.

TECHNICAL FEATURES	
Supply	24 - 35V with polarity
Current in standby	200mA
Current in alarm	4mA
Activation indicator	Red led
Dimensions	Ø115mm / 60mm
Humidity	20 - 95%RH
Temperature	-10°C - +50°C
Standard	UNE 23300 / EN 50545-1
IP protection	IP30
Lifetime	up to 10 years



Nitrogen dioxide sensor
SDN

Dioxide Nitrogen (NO2) diffusion sensor for COsensor system designed according to the European standard EN 50545-1 and UNE 23300 certified.

The sensor is designed to work with all models of COsensor control panels, both conventional (CCO and MiniCO models) and addressable (ZafirCO). In this way, when control panel start up , the sensor recognizes control panel and adapts its communication.

The sensor is based on electrochemical technology that allows adequately answer to CO concentration in the environment, and send this information to the control panel. Then, control panel active properly activate ventilation and alarms.

The sensor has a red LED red that flashes every 10 seconds in normal operation. Connected with conventional control panel, the measures of NO2 are transformed in a equivalent ppm CO concentration. In this way, it is allowed installation of CO and NO2 sensors in the same detection zone line. Relation between NO2 and CO is lineal indicating 100 ppm of CO with 2,5 ppm of NO2. SDN sensor makes double led flash when reaches measures of equivalent 50 ppm CO concentration, and fix light led when reaches measures of equivalent 200 ppm CO concentration. Connected with addressable control panel, it makes double flash when the concentration read by the sensor is equal or higher than the ventilation level programmed at control panel, and fixed light when concentration read by the sensor is equal or higher than the alarm level programmed at control panel.

NO2 sensors must be distributed at the installation in accordance with standards and/or regulation. A recommendable coverage for these devices are between 200 and 300 m², and place in a height between 1,5 and 2 m from the floor.

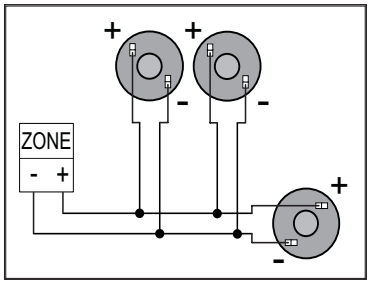
In addressable control panels with maintenance mode active, it can be easily checked the operation of sensors by observing flashing of sensor leds when faces to test gas.

The philosophy and operation mode of the equipment is designed according to European standard EN 50545-1, using diffusion sensors and factory calibration for operation during the operational life of the sensors, and UNE 23300 certified.

Features:

- Compatible with conventional control panel CCO and MiniCO models and addressable control panel ZafirCO.
- The sensor base support installations with 16 mm diameter pipe.
- It has red LED which identifies the sensor communication and concentrations of ventilations and alarm.
- Connected with addressable control panels, it supports maintenance mode to check the status of the sensor when face to test gas.
- It contains programming number to allow identification of sensor at addressable control panel.
- Designed according to European standard EN 50545-1.
- UNE 23300 certified.

TECHNICAL FEATURES	
Supply	24 - 35V with polarity
Current in standby	2mA
Current in alarm	4mA
Activation indicator	Red led
Dimensions	Ø115mm / 60mm
Humidity	20 - 95%RH
Temperature	-10°C - +50°C
Standard	UNE 23300 / EN 50545-1
IP protection	IP30
Lifetime	up to 4 years



Sounders for CO / NO_2 system

LLHC - SIR24BL/BZA - SIR24F - SIR24P - SIR24B

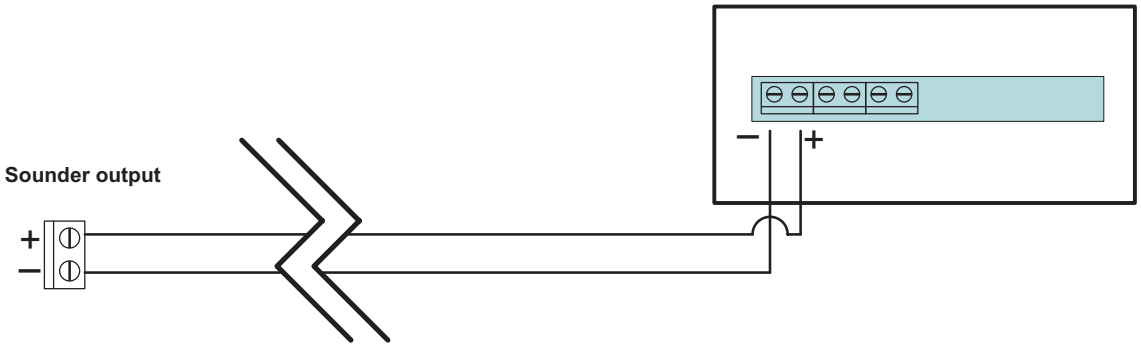
Sign to be directly connected to the output of the control panels or relay modules. With indication adhesive.

LLHCO LIGHT SIGN	
Operating voltage	12-30Vdc
Consumption	80mA at 30Vdc
Power	80dB at 1m
IP protection	IP40
Standard	EN 60598 / EN 60598-2-1 / EN 61547 / EN 55015
Temperature	0 to 40°C
Humidity	95%RH
Dimensions	262x100x51mm
Weight	340gr
Jumper	Fixed / flashing
	active / no active buzzer

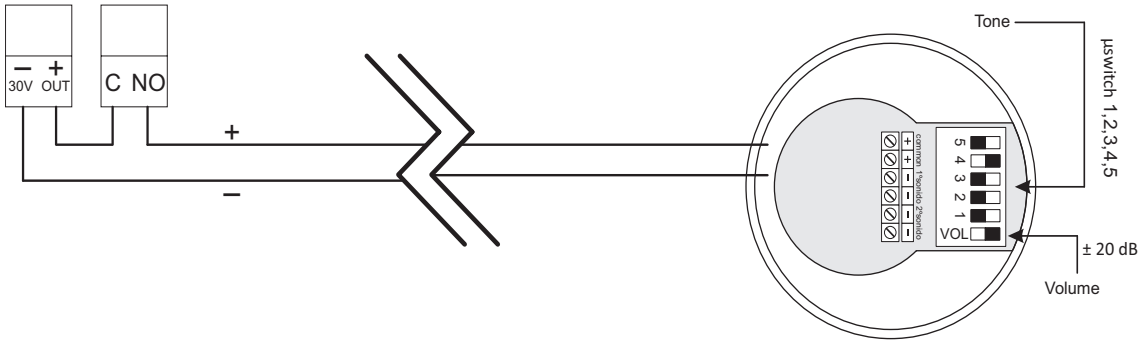
SIR24B / SIR24BL / SIR24BZA SOUNDERS	
Voltage range	9 - 28Vdc
Consumption (using tone 3)	at 24Vdc 16mA (SIR24B) / 20mA (SIR24BL)
Consumption (tone 3/0,5Hz/high power)	at 24Vdc 32mA (SIR24B + BSLC)
Output volume (tone 3)	24Vdc 102dB (A)
Operating temperature	-25°C to +70°C
Dimensions	Ø95 x 107mm (SIR24BL / SIR24BZA)
IP protection	IP54 (SIR24B) / IP65 (SIR24BL) / IP65 (SIR24BZA)
• 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	
• All sounders have a diode incorporated	

SIR24P / SIR24F SOUNDERS	
Material	red P.V.C.
Operating voltage	30Vdc
Consumption at 30Vdc	70mA
Power	85dB
Operating temperature	5°C to 40°C
Dimensions	80x80x30mm
With intermittent flash	Only SIR24F model

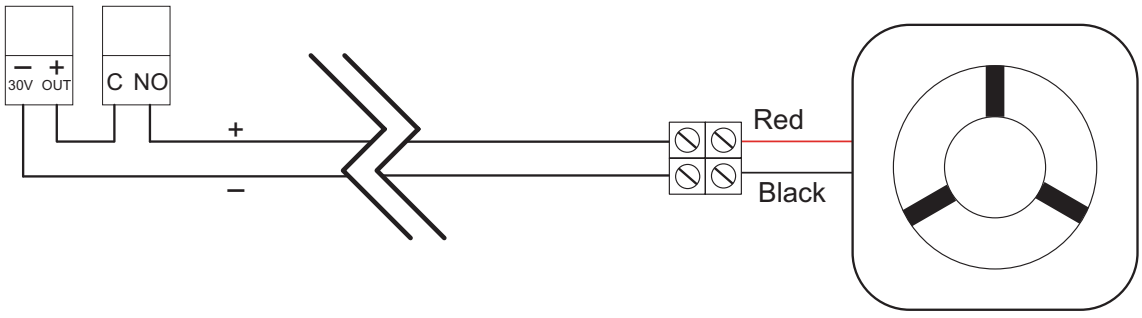
LLHCO LIGHT SIGN



SIR24B, SIR24BL AND SIR24BZA SOUNDERS



SIR24P AND SIR24F SOUNDERS



CO & NO_2 detection

Home detection

Extinguishing systems

Stand alone smoke and CO detectors
EYEHOME

EYEHOME+

EYEHOME

EYEHOME+CO

MDAHWF WIFI

Range of stand-alone detectors for the detection of fire and carbon monoxide (CO). Depending on the model, it is possible to interconnect them, as well as to install a Wi-Fi module, which, when connected to an internet access, allows you to set the different operating parameters of the detectors and also receive the alarm and malfunction signals on your smartphone app, wherever you are.

TECHNICAL FEATURES EYEHOME+CO	
Power supply	3v (2 AA batteries)
Wi-Fi distance	50m
Standby current	< 50µA
Alarm current	< 20µA
Power	≥ 85dB at 1m
Lifetime	10 years
Temperature	-10°C +40°C
Humidity	30-95%RH
Standard	EN 50291-1:2010+A12012

TECHNICAL FEATURES EYEHOME / EYEHOME+	
Power supply	DC 2 x 1,5V (2 AA batteries)
Power	> 85dB (A)
Alarm consumption	4mA
Max. number of detectors	up to 30 detectors
Low battery indicator	Yes
Silent model	Yes
Wi-Fi	Only EYEHOME+ model
Standard	EN 14604

Environmental CO_2 measurer
EYECO2

Simple and practical indicator of the ambient CO_2 concentration.

High-precision detector capable of measuring CO^2 concentration in indoor environments, as well as humidity and temperature, and emitting a light and voice alarm signal when the values reach those preset by the user.

Supports wireless connection, so it can be used independently, or integrated into the Familylink intelligent security system, through an external connection module (with a range of up to 100m) and the FamilyLink application.

This indicator can be used as a tabletop or wall-mounted depending on the needs or uses. It is powered by a DC12V / 1A adapter, it has a lithium battery, which gives the detector an autonomy of up to 12 hours of operation.

CO_2 concentration is a natural indicator of air quality that can be used additionally as a security element for COVID surveillance.

Wide range of CO^2 concentration measurement between 400 and 5000 ppm. Values below 1000 ppm show a healthy environment. Higher values warn of precautionary situations. Above 1500 ppm, a red visual warning and a spoken alarm message are generated (configurable values through the FamilyLink APP).

It has a maximum recommended coverage of $80m^2$.

According to BS EN 50543-2011 AC-2014.

TECHNICAL FEATURES	
Supply	DC 12V (12V / 1A adapter)
CO_2 detection range	400 ~ 5000ppm
CO_2 resolut. measur. / time response	1ppm; T90 < 120s
Working environmental temperature	-5°C ~ 50°C
Working environmental humidity	0 ~ 90%RH (no condensation)
Backup battery running life	12 hours
Communication distance	≥ 100m
Working temperature	-5°C ~ 50°C
Working humidity	0% ~ 99,9% RH
Lifetime	up to 5 years
Dimensions	99x99x37mm
Weight (net)	206gr

Stand alone smoke and CO detectors
EYEHOME

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.

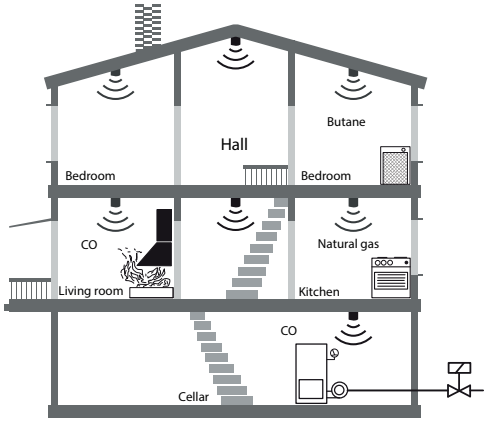
The escaping gas or shut-off flame in boilers, kitchens, living areas with gas stoves or heaters, etc, can cause a high concentration of combustible gases indoors, with the danger of explosion that it entails.

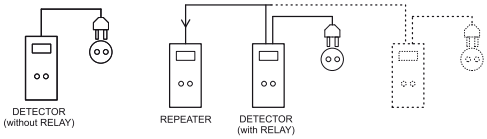
Keeper GAS is particularly suitable for the detection of combustible gases common in places such as those mentioned above.

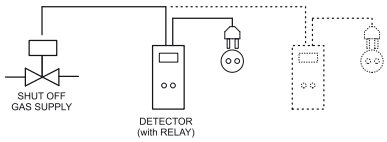
Features:

- 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
Dry contact intensity	9Vdc - 100mA / 230Vac - 0,5A
Standard	EN 50194 type A
Dimensions	140,5x73x48mm
Humidity	20 - 95% RH
Operating temperature	-10°C to 50°C
Approximate coverage	25m^2
Sensor life	10 years
Lower explosive limit (LEL) - Keeper GAS	10%
Detection sensibility - Keeper CO	300ppm





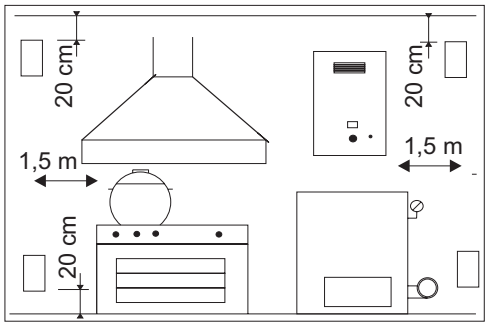


MODELS

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.



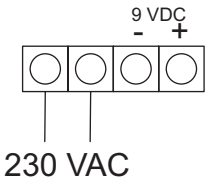
INSTALLATION NOTES

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

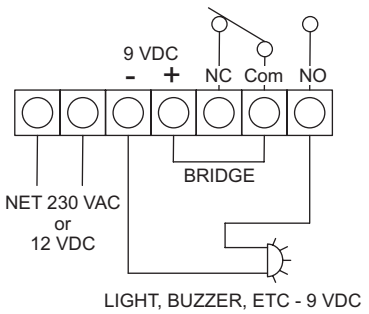
Keeper CO: 20cm from the roof.
Keeper GAS:

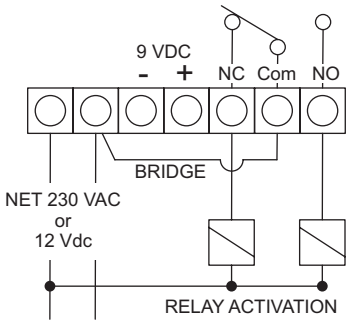
- Light gases (city gas, natural gas, etc.) at 20 cm below the ceiling.
- Hard gases (propane, butane) at 20 cm from the floor.

Wiring diagram
for 230VAC supply



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





Home detectors

DAH9V - DAGB - CAVG

DAH9V SMOKE HOME DETECTOR	
Autonomous smoke detector for fore detection, with acoustic alarm	
Smoke sensibility	0,08 ~ 0,15dB / m
Temperature sensibility	57°C (model with temperature sensor)
Current in standby	8µA
Current in alarm	15mA
Temperature	0°C to 50°C
Humidity	0 a 95%RH
Acoustic alarm level	85db / 3m
Dimensions	Ø105 x 30mm
Installation requirements	
• Centre of roof (do not install less than 10cm from the walls)	
Minimum installation recommended	
• At least 2 detectors by house	
• At least 1 detector by floor	
Installation zones recommended	
• Separator hallway outside the open bedrooms	
• Bedrooms normally closed	
• On the roof before a stair	
• Living room, dinner room, attic, etc.	

DAGB HOME GAS DETECTOR	
Autonomous gas detector with acoustic alarm, capable of activate a gas shut off to avoid	
Supply	220V AC
Test button	Yes
Indication LED	Yes
Acoustic level	80dB
Working temperature	-10°C ~ +50°C
Dimensions	120x100x60mm
Standard	CE
Gas type detected	1. Liquefied gas
	2. Natural gas

CAVG GAS SHUT OFF ACTUATOR	
Electromechanical valve for automatic shut off of the gas supply	
Dimensions	100 x 90 x 70mm
Nominal voltage	12Vdc
Operating voltage	8Vdc - 16Vdc
Operating power	0,24W - 4,5W - 10W
Consumption	20mA - 350mA - 1000mA
Torque	10 - 30 - 40Kg / cm
Temperature	-20°C ~ +50°C
Humidity	< 95%RH

CO & NO_2 detection

Home detection

Extinguishing systems

Extinguishing control panel
CLVR02EXT

Automatic conventional fire detection and fire alarm control panel with extinguishing functionality.

CLVR 02EXT: 2 zones extinguishing control panel.

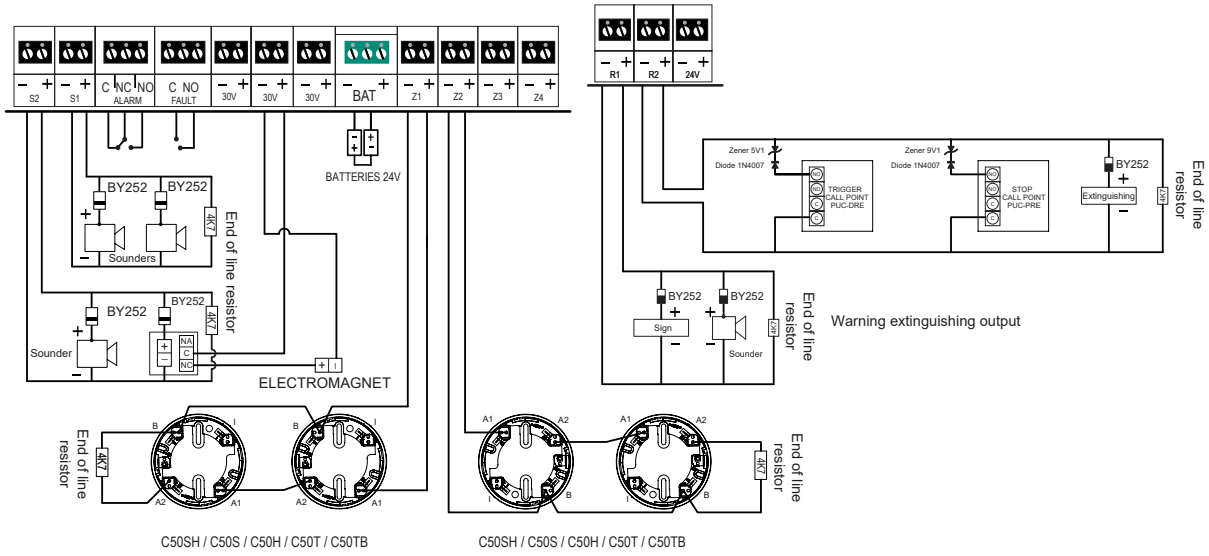
The control panel incorporates a third configurable zone as conventional separate zone from extinction in order to protect against fire small areas close to the flood/extinction zone, or allow the supervision of an external fire protection system giving a fault indication, such as a pressure switch contact.

CLVR control panel characteristics are common among all its models.

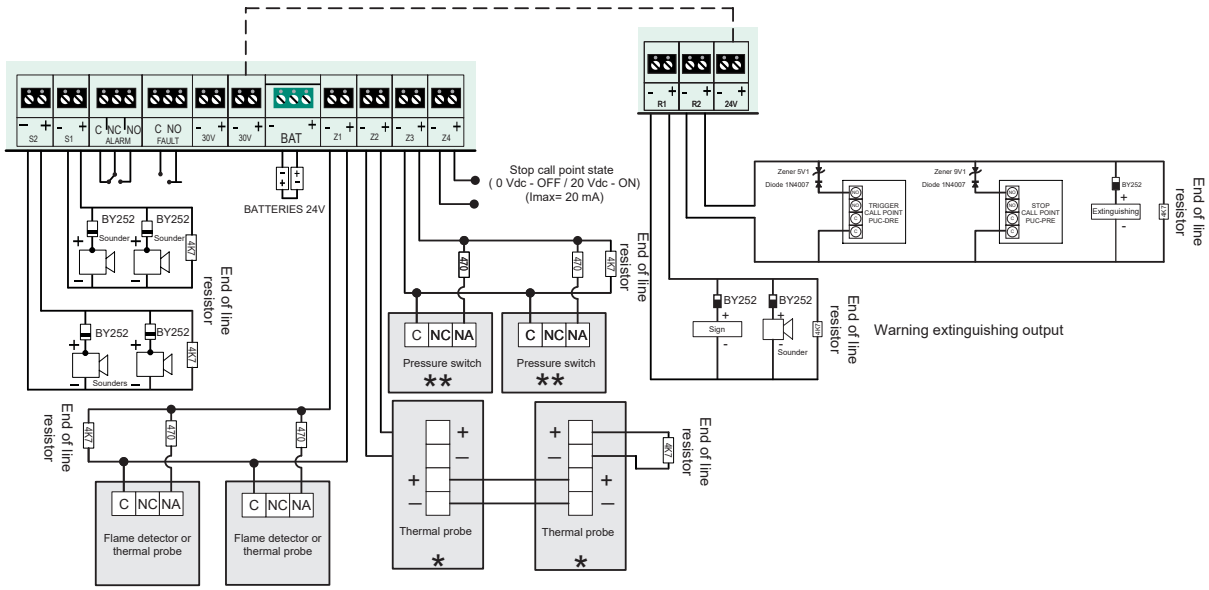
Features:

- 2 zones control panel with extinguishing functionality for conventional detectors and call points use.
- Third additional zone configurable as an alarm and detection zone for conventional detectors and call points or as a monitoring input of an external fire protection system.
- Same technical features as conventional CLVR control panels (2 general sounder outputs, 1 alarm output, 1 fault output, 230Vdc outputs, test mode, threshold setup, metallic cabinet, etc).
- 3 modes of operating extinction:
  - Standard mode: Output R1 of pre-warning is activated with Zone 1 or Zone 2 in alarm status.
  - Consecutive mode: Output R1 is activated intermittently (1 second with Zone 1 or Zone 2 in alarm status, 0,5 seconds with Zones 1 and 2 in alarm status, and continuing once the output R2 delay is finished).
  - Simultaneous mode: Output R1 is activated with Zones 1 and 2 in alarm status.
- Stop and activation extinguishing button directly in the control panel.
- Possibility to install manual stop and activation buttons near the flood zone.
- 1 extinction output ("R2") supervised, temporized supervised, temporized between 0 and 60 seconds, protected by a resettable fuse.
- Delay for R2 extinguishing output reset after extinguishing activation temporized between 0 and 30 minutes.
- Certified according EN 54-2, EN 54-4 and EN 12094-1 with CE mark.

TECHNICAL FEATURES			
Supply voltage	110 / 230VAC 50 / 60Hz	End of line capacitor	4K7
Output voltage	21V nominal	Sounder output voltage	30V/DC
Max. consumption	70VA at 230V/AC	Environmental conditions	-10°C +50°C
Batteries	2 x 12V 7Ah SLA	Dimensions	363 x 331 x 96mm
Extinguishing fuse R1 / R2	0,5A / 0,75A autoreset	Weight (without batteries)	4,3Kg
Batteries charger	500mA 27V/DC 20°C	Standard	EN 54-2 / EN 54-4 / EN 12094-1
Devices per zone	32	30V max current output	1,5A autoreset
Control panel power supply	2,2A	Extinguishing module fuse	1,85A autoreset
Max. current per zone	2mA (in standby)	S1 output sounder fuse	1,85A autoreset
		S2 output sounder fuse	0,75A autoreset



Example of connection with extinction



*Note 1: The wiring diagram of the thermal probe depends of the model.
**Note 2: Zone 3 used for monitoring the pressure switch.

Example of wiring diagram with flame detectors, thermal probes and pressure switches

Alarm and extinguishing control panel
CLVR03EXT / CLVR03XTA

Conventional fire alarm and extinguishing control panels with 3 detection zones.

The CLVR03XT and CLVR03XTA fire panels have been designed according to the European standards EN54-2 and EN 54-4 on fire alarm and detection systems, control and indication equipment; EN12094-1 on fixed fire fighting systems and components for gas extinguishing systems.

In addition, the CLVR03XTA is UL and FM approved.

The CLVR03XT and CLVR03XTA are combined fire alarm and extinguishing control panels with three independent detection zones.

The control panels are equipped with an integral battery charger and a power supply designed in accordance with EN54-4.

Features:

- Independent or combined configuration of the zones.
- Configurable sounders delay.
- Configurable detection delay.
- Option to receive signals from other systems, such as aspiration equipment.
- Timer of the remaining time until the release of the extinguishing agent.
- Configurable extinguishing delay, up to 60 seconds.
- Control of the ventilation/extraction system incorporated.
- Approved and certified according to EN12094-1, EN54-2 and EN54-4.
- Approved by UL and FM in the case of CLVR03XTA.

TECHNICAL FEATURES			
Supply voltage	230Vac	Battery voltage	27,6Vdc
Supply fuse	1,6A	Dimensions	285 x 310 x 90mm
Battery	2 x 12V	Weight	6kg
Alarm current	0,235A	IP protection	IP30
Batteries current	3A	Standard	EN 12094-1
Max. ripple current	200 millivolts		EN 54-2 / EN 54-4
Sounder output	21 at 28Vdc		UL / FM (CLVR03XTA)

Alarm and extinguishing control panel CLVR03XTZ

Conventional fire alarm and fire extinguishing control panel with 3 detection zones.

The CLVR03XTZ extinguishing control panel is designed to control an independent zone of the extinguishing system. It has 3 detection zones to act on the extinguishing systems. The zones can be configured independently or combined with each other to activate the extinguishing system.

The CLVR03XTZ control panel provides a log of all the events (history events) that happen in the control panel, as alarms, faults, etc. This log can be downloaded to a computer using the specific management software Loop Explorer 2.

The control panel has 6 programmable outputs that can be used to control remote devices or signalling systems.

The control panel can be configured to provide 2 extinguishing outputs, which can work together, or be divided into principal and reserve.

It has an LCD screen to complement the LED signalling, as well as an additional visual aid. This display can change colour depending on the status of the control unit.

The CLVR03XTZ control panel is fully programmable from the front panel and can be password restricted.

Features:

- Single area extinguishing panel.
- Dual extinguishing output (main and standby).
- Logging of up to 1000 events.
- Dynamic LCD display.
- 4 user access codes.
- 6 programmable relay outputs.
- Approved and certified according to EN12094-1, EN54-2 and -EN54-2.

TECHNICAL FEATURES			
Supply voltage	230Vac	Battery voltage	27,6Vdc
Supply fuse	2A	Dimensions	368 x 324 x 100mm
Battery	2 x 12V	Weight	6kg
Alarm current	0,235A	IP protection	IP30
Batteries current	2A	Standard	EN 12094-1 EN 54-2 / EN 54-4
Max. ripple current	< 200 millivolts		
Sounder output	21 at 28Vdc		

Simplified extinguisher call points
PUC-DR / PUC-PR

Simplified manual call points for the shut-down and triggering of extinguisher systems using gaseous agents.

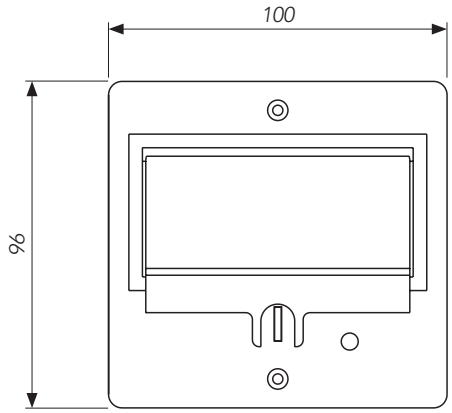
Every call point includes an action indicator (LED) that lights up if manually activated, in addition to a yellow tab that is triggered on the lower part of the drive face.

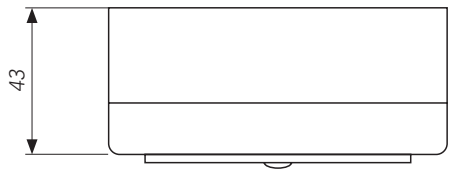
The call point is easily resettable by flipping the yellow switch on the front face.

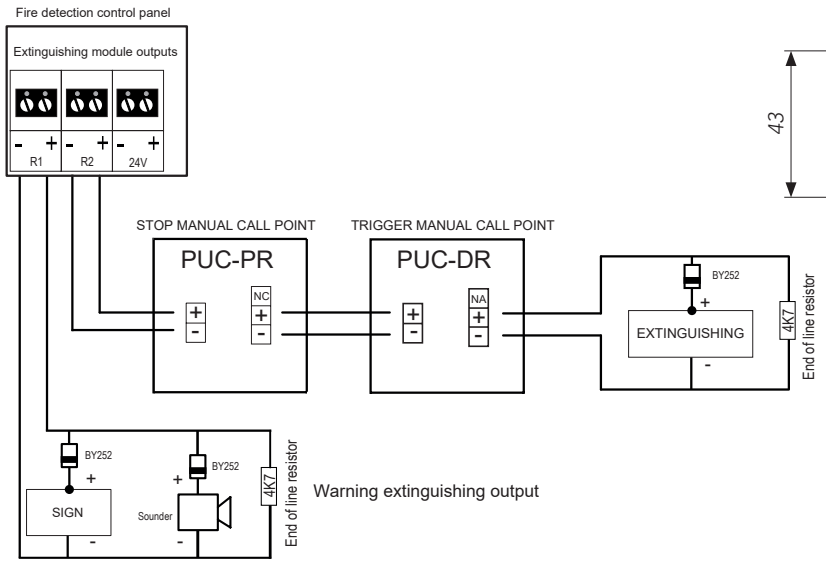
PUC-PR model: Simplified manual call point for the SHUT-DOWN of EXTINGUISHER (blue) for use in conventional CLVR02EXT control panels.

PUC-DR model: Simplified manual call point for the TRIGGERING of EXTINGUISHER (yellow) for use in conventional CLVR02EXT control panels.

TECHNICAL FEATURES	
Power supply	20 - 24V with polarity
Standby consumption	0mA
Alarm consumption	35mA
Activation indicator	Red led
Remote indicator output	No
Humidity	20 95%RH
Temperature	-10°C to +50°C
IP protection	IP50
Standard	EN 54-11







Extinguisher call points
PUC-DRE / PUC-PRE

Manual call points for the shut-down and triggering of extinguisher systems using gaseous agents.

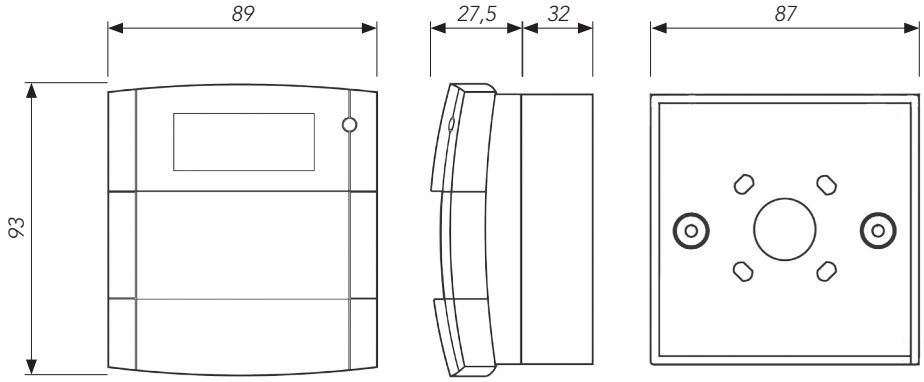
The call points are actuated by breaking a fragile component (glass).

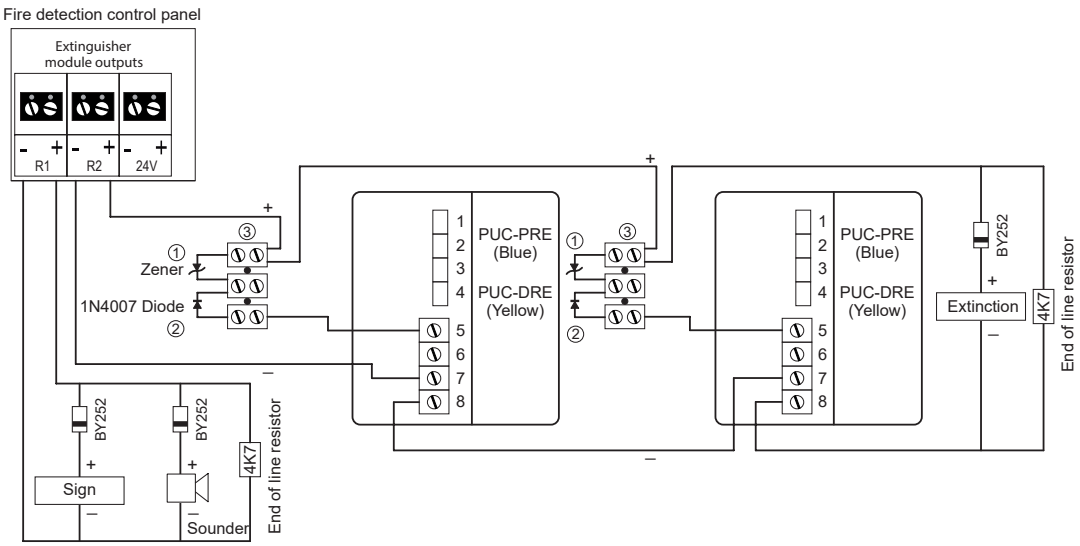
Fitted with a protective cover to prevent accidental activations.

The PUC-DRE model is the yellow extinguisher triggering call point, based on standard EN 12094-3.

The PUC-PRE model is the blue extinguisher shut-down call point, based on standard EN 12094-3.

TECHNICAL FEATURES	
Maximum voltage	30Vdc
Alarm consumption	35mA
Humidity	93%RH
Temperature	-10°C to +55°C
IP protection	IP24D
Standard	EN 12094-3





Note 1: Zener 5V1 for PUC-DRE call point. Zener 9V1 for PUC-PRE call point
Note 2: 1N4007 diode
Note 3: Strip
Note 4: PUC-DRE and PUC-PRE can be placed in any order on the connection line.
Components (1), (2) and (3) come with the call point

Luminous alarm signs
LLH / LLHST / LLH23 / LLH65


The extinguisher system allows the possibility of including extinguisher signs.

As the triggering of an extinguishing system may entail certain risks and dangers, the function of the extinguisher sign is to warn the staff of the areas sensitive to the imminent triggering of the system or when the system has been triggered.

Three types of extinguisher signs are available:

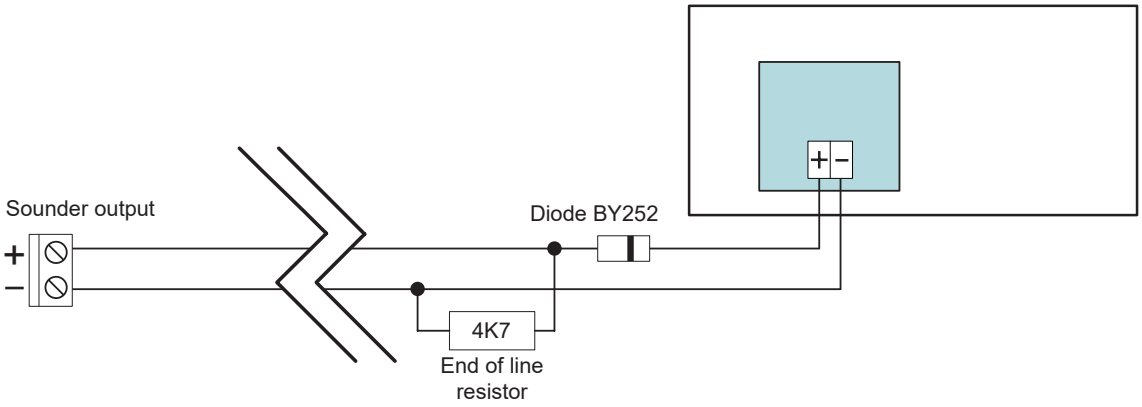
1) LLHST: Device with acoustic and luminous warning function.
2) LLH: Device with acoustic, luminous and informative sticker warning function.
3) LLH23: Device with EN 54-3 acoustic and EN 54-23 luminous functions and adhesive sticker warning.
4) LLH65: Device with acoustic and luminous functions for outdoor, protection IP65 and adhesive sticker warning.

The third device must always be used in such installations that do not have other EN 54-3 and EN 54-23 fire warning devices.

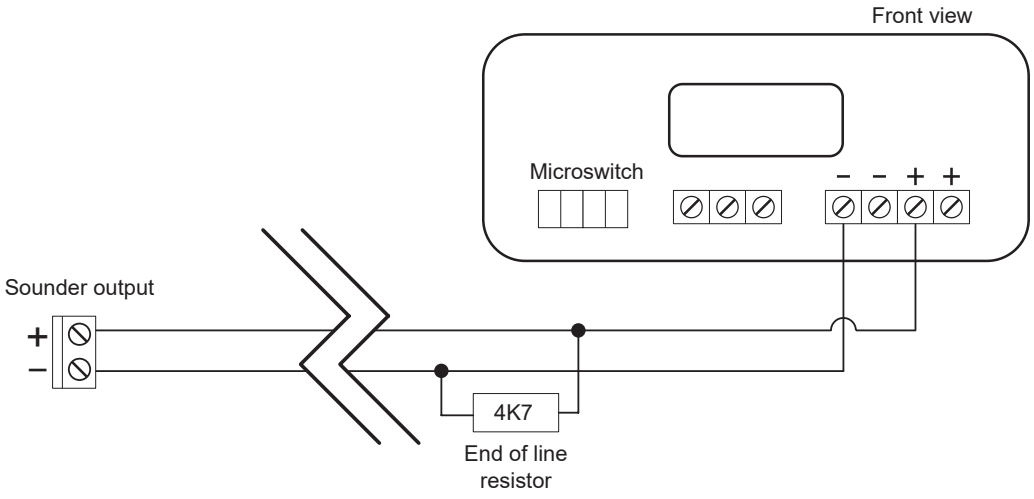
LLH and LLHST LUMINOUS SIGNS	
Signs to be connected directly to the outputs of the control panels or to the relay modules With indicator sticker	
Operating voltage	12-30Vdc
Maximum consumption	80mA at 30 Vdc
Power	80dB at 1m
IP protection	IP40
Standard	EN 60598 / EN 60598-2-1 / EN 61457 / EN 55015
Temperature	0 to 40°C
Humidity	95%RH
Dimensions	262x100x51
Weight	340gr
Jumper	fixed / intermittent illumination
	active / non-active buzzer

LLH23 LUMINOUS SIGN	
Optic acoustic alarm sign certified as per EN 54-3 and EN 54-23. Available with several selectable audio tones	
Nominal voltage	24Vcc
Consumption	82mA at 30Vdc
Category	W-3,6-9
Power	71 - 91dB
IP protection	IP21C
Standard	EN 54-3 / EN 54-23
Temperature	-10°C to +55°C

LH65 LUMINOUS SIGN	
Optic acoustic alarm sign for outdoor	
Nominal voltage	10,8Vdc at 28Vcc
Consumption	105mA at 24Vdc
Power	100db at 1m 12V
	108db at 1m 24V
IP protection	IP65
Temperature	-10°C to +55°C



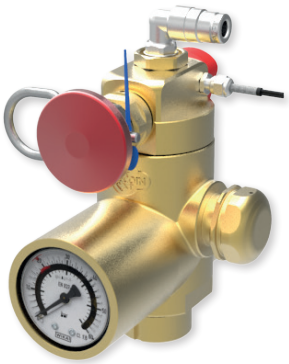
LLH / LLHST diagram



LLH23 diagram

Note: The LLH23 sign has the diode incorporated

Automatic extinguishing in kitchens
EXACOC



Automatic fire extinguishing system for kitchens composed of

An automatic detection system based on 9l, 12l and 25l capacity extinguishers, which provide a stainless steel pipes system on which diffusers are connected to the possible origins of the fire (stove, grill, fryer, etc.) and at least one above the filters and another in the smoke outlet 30 cm into the pipe.

COMPONENT FEATURES			
	EXACOC	EXACOC12L	EXACOC25L
Stainless steel cylinder	1 de 9 litres	1 de 12 litres	1 de 25 litres
Stainless steel discharge hose	1	1	1
Wall bracket	1	1	1
Low pressure discharge valve	1	1	1
End of line manometer	1	1	1
Ø6 x 2m detector tube	10m	12m	24m
Nozzles	6	8	15

EXAMPLE OF INSTALLATION. The following material will be required in the diagram shown:

- 1 cylinder of 9L consisting of 1 9L cylinder, valve, manometer, hose and wall bracket
- 8m thermal tube Ø6x2mm (approx.)
- 1 manual call point with monitoring manometer
- 1 end-of-line pressure switch with line monitoring manometer
- 1 diffuser for fryers
- 3 diffusers for hot points
- 3 diffusers for filter and pipe / plenum

Other gas extinguishers available:

- CO2
- NOVEC
- INERTS
- HFC 227

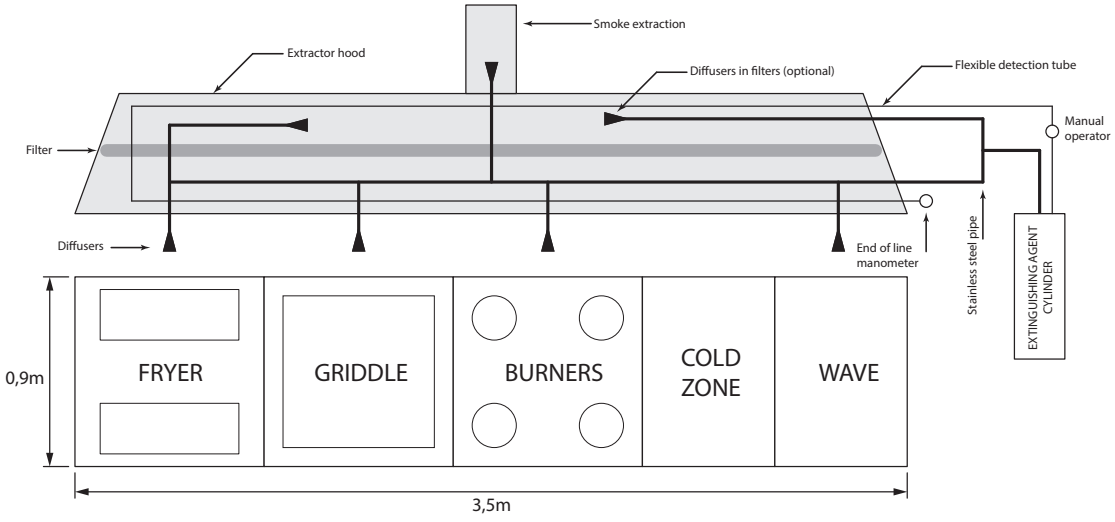


Diagram installation

Automatic extinguishing system
SOYUZ

The system is based on placement of SOYUZ generators in the zone to protect. When it is activated electrically, it burns a mix pyrotechnic that generates an spray finally disseminated by the environment composed of potassium carbonate (K_2CO_3), which is not a TOXIC substance that involved eliminating the formation of radicals that are associated with fire and by absorbing the energy of combustion, so that fire is extinguished.

This system also has the advantage that it does not move the oxygen of the place, so the people do not suffer suffocation hazard.

Normally the generators are triggered by an alarm and fire detection control panel with functionality of extinguishing EN 12094 certified.

The system can be used for the protection of hoods, data processing points, special equipment, etc.

Features:

- Stock/operating temperature of generators: -40 to 85°C.
- Resistance of generators: 0,7Ω.
- Toxicity and corrosivity: NONE; CAS N° 584-08-07; Oral LD50 (rat): 1850 mg/Kgm.
- There are stands with capacity for 1, 4, 6 and 10 generators.
- Connection of generators through sequential card. Each card supports a maximum of 10 generators.
- ZAFIRPWS2 external power supply can support 1 sequential card.
- ZAFIRPWS5 external power supply can support up to 2 sequential cards.
- Extinguishing capacity of 4m³ (200gr generator) or 6m³ (300gr generator) in total inundation design.
- Extinguishing capacity between 0.63 and 1m² (300gr generator) in surface extinguishing application design.

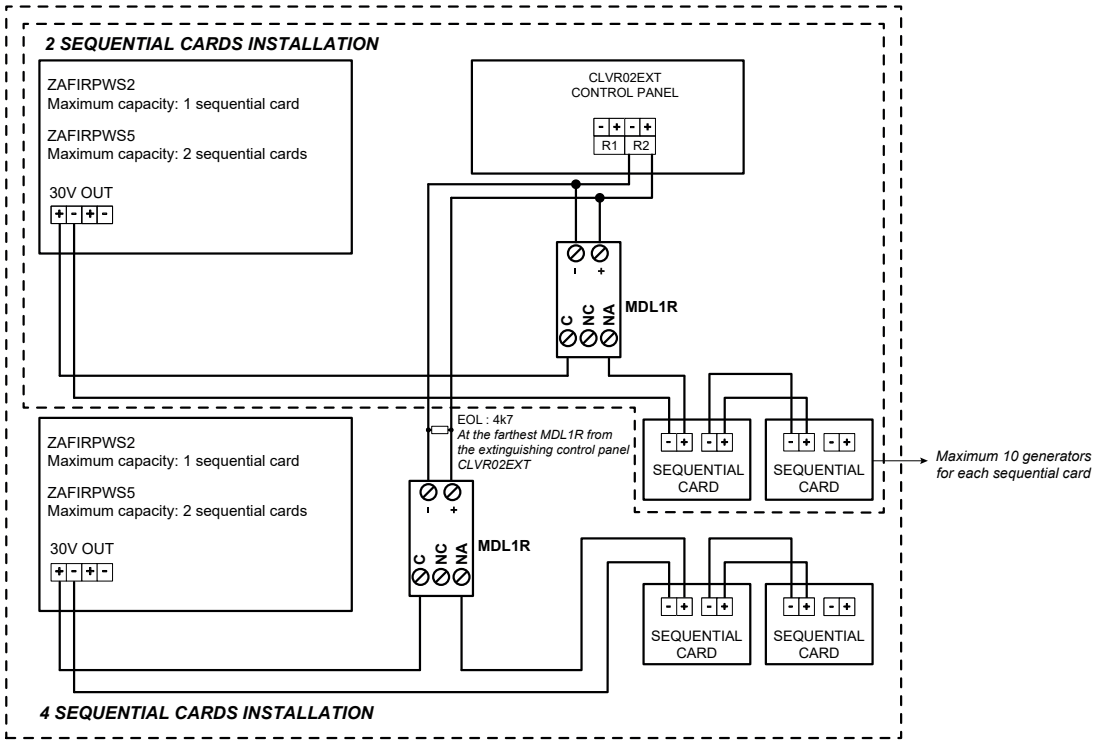
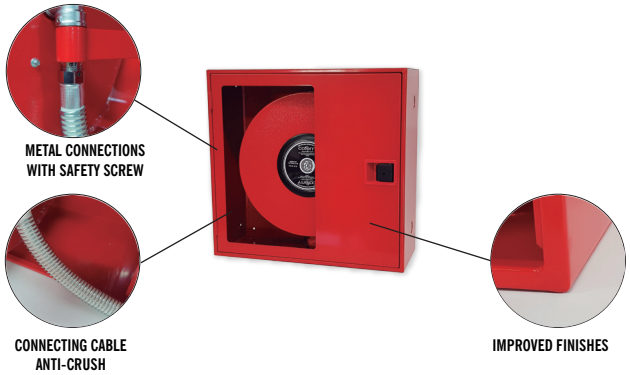


Diagram installation

Ø25 fire hose cabinet
CR3X



Fire hose cabinet Ø25 mm according to UNE/EN 671-1 and 20 m semi-rigid hose made according UNE 694.
It is composed by:

Horizontal cabinet made of 1 mm thickness steel, painted in red color RAL3000, size 630 x 610 x 245 mm, with semi-blind door for polystyrene, and easy-open lock, provided with support arm fixing and pre-holes for water supply, including reel, hose, nozzle, swing arm, seat valve, manometer and supply hose.

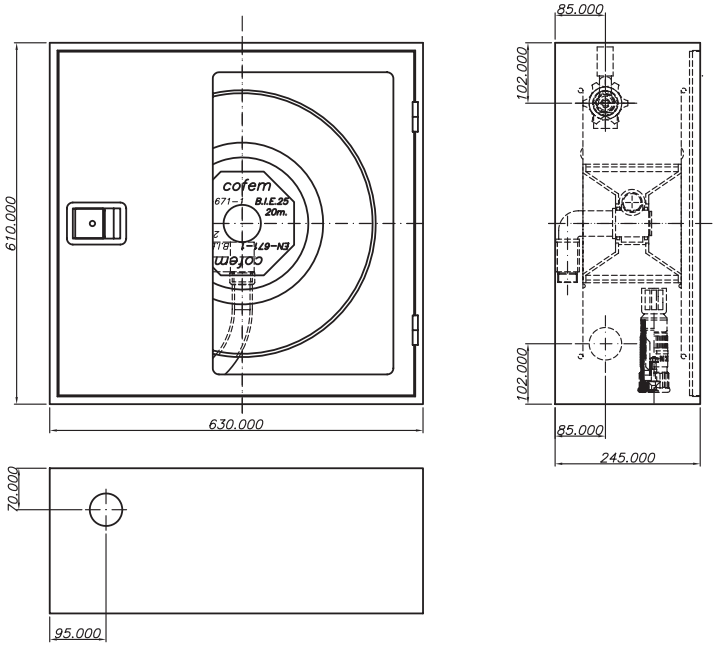
It can be made in another color, with the RAL provided by the costumer, or in stainless steel, and it can be mounted in a floor bow.

Likewise, under command, the door design has some options: standard, red blind, white blind, white semi-blind, totally stainless, etc.

There are the reference CR3XB, that mounts a glove valve with manometer outlet.

Features:

- Reel of Ø460 mm disks, painted in red, with axial supply.
- Semi-rigid hose Ø25 mm and 20 m length, manufactured according to EN 694 standard and CE mark.
- Hose nozzle of three positions: close, spray and jet, connected to the end of the hose by threaded prop.
- Arm red painted with double articulation and fixing strip to the cabinet bracket.
- Seat valve at 90° of 1", with 1/8" manometer outlet.
- Manometer graduated from 0 to 25 bars.
- Supply trigger between valve and reeling frame, with a Ø25 mm semi-rigid hose, with anti-crush spring.



Ø25 30m fire hose cabinet
B330

Fire hose cabinet Ø25mm according to UNE/EN 671-1 and 30 m semi-rigid hose made according UNE 694.
It is composed by:

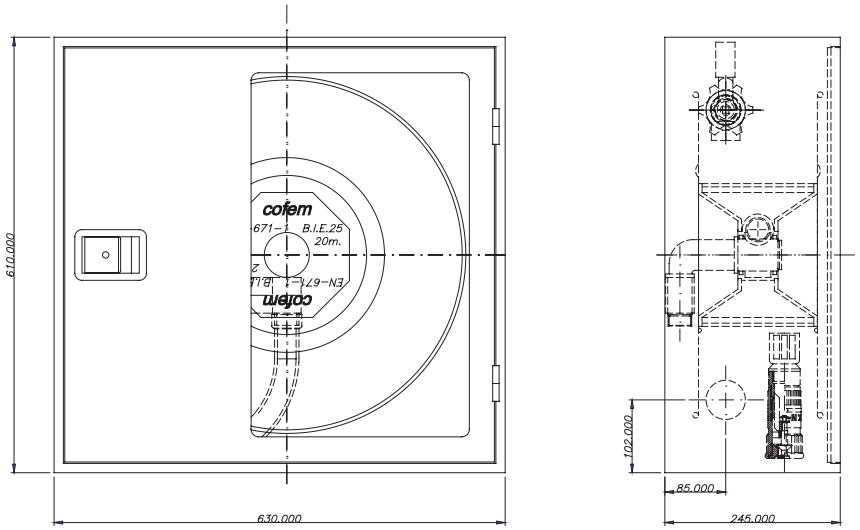
Horizontal cabinet made of 1 mm thickness steel, painted in red color RAL3000, size 630 x 610 x 245 mm, with semi-blind door with polystyrene, and easy-open lock, provided with support arm fixing and pre-holes for water supply, including reel, hose, nozzle, swing arm, seat valve, manometer and supply hose.

It can be made in another color, with the RAL provided by the costumer, or in stainless steel, and it can be mounted in a floor bow.

Likewise, under command, the door design has some options: standard, red blind, white blind, white semi-blind, totally stainless, etc.

Features:

- Reel of Ø500 mm disks, painted in red, with axial supply.
- Semi-rigid hose Ø25 mm and 30 m length, manufactured according to EN 694 standard and CE mark.
- Hose nozzle of three positions: close, spray and jet, connected to the end of the hose by threaded prop.
- Arm red painted with double articulation and fixing strip to the cabinet bracket.
- Seat valve at 90° of 1", with 1/8" manometer outlet.
- Manometer graduated from 0 to 25 bars.
- Supply trigger between valve and reeling frame, with a Ø25 mm semi-rigid hose.



Ø25 fire hose cabinet
C4

Fire hose cabinet Ø25 mm according to UNE/EN 671-1 and 20 m semi-rigid hose made according UNE 694.
It is composed by:

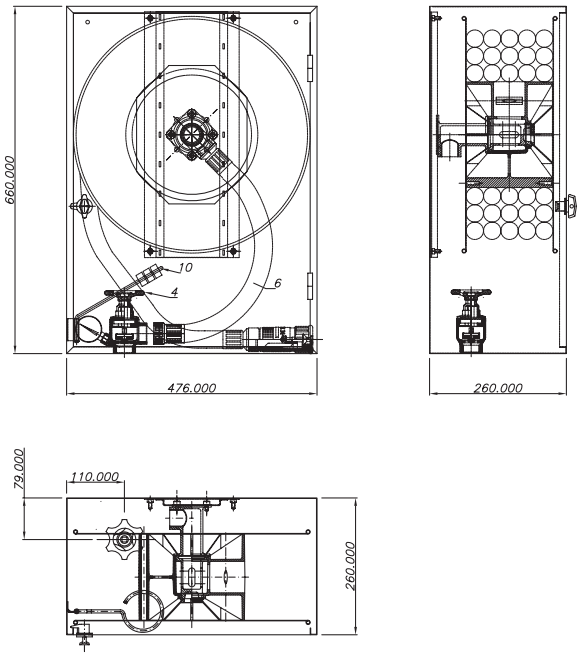
Vertical cabinet made of 1 mm thickness steel, painted in red color RAL3000, size 476 x 660 x 260 mm, with semi-blind door with polystyrene, and easy-open lock, provided with support arm fixing and pre-holes for water supply, including reel, hose, nozzle, swing arm, seat valve, manometer and supply hose.

It can be made in another color, with the RAL provided by the costumer, or in stainless steel, and it can be mounted in a floor bow.

Likewise, under command, the door design has some options: standard, red blind, white blind, white semi-blind, totally stainless, etc.

Features:

- Rectangular dimensions for easy installation in columns.
- Reel of Ø460 mm disks, painted in red, with axial supply.
- Semi-rigid hose Ø25 mm and 20 m length, manufactured according to EN 694 standard and CE mark.
- Rail for hose allows the exit of the hose in any direction from the frontal 180°.
- Hose nozzle of three positions: close, spray and jet, connected to the end of the hose by threaded prop.
- Seat valve at 90° of 1", with 1/8" manometer outlet.
- Manometer graduated from 0 to 25 bars.
- Supply trigger between valve and reeling frame, with a Ø25 mm semi-rigid hose.



Reel and extinguishing support
SPB25

Fire hose cabinet Ø25 mm according to UNE/EN 671-1 and 20 m semi-rigid hose made according UNE 694.
It is composed by:

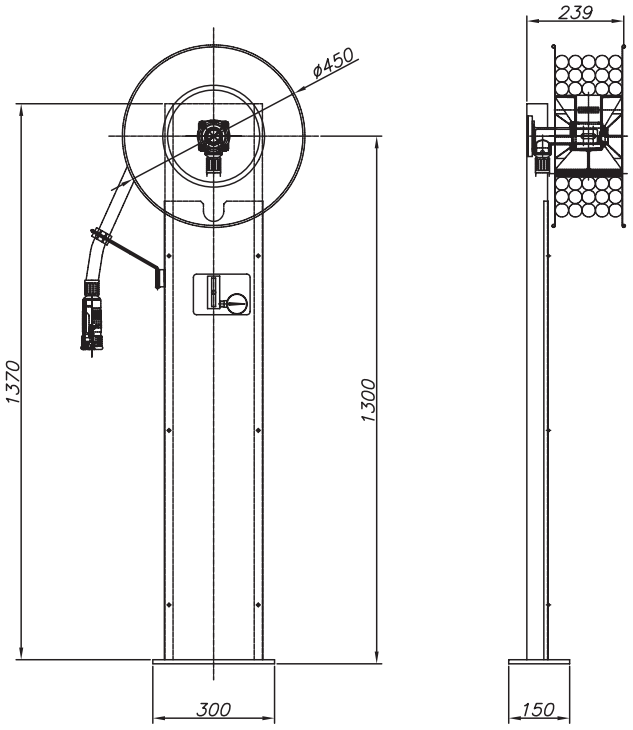
Support foot built in 1 mm thick steel sheet, painted in RAL 3000 red color, measures 476 x 1525 x 240 mm.

Provided with fixing of fire hose and extinguisher mounting bracket, input supply, hose, nozzle, seat valve, manometer and supply hose.

It can be made in another color, with the RAL provided by the costumer.

Features:

- Reel of Ø460 mm disks, painted in red, with axial supply.
- Semi-rigid hose Ø25 mm and 20 m length, manufactured according to EN 694 standard and CE mark.
- Rail for hose allows the exit of the hose in any direction from the frontal 180°.
- Hose nozzle of three positions: close, spray and jet, connected to the end of the hose by threaded prop.
- Seat valve at 90° of 1", with 1/8" manometer outlet.
- Manometer graduated from 0 to 25 bars.
- Supply trigger between valve and reeling frame, with a Ø25 mm semi-rigid hose.



Horizontal sets
PULEXH

CR3X14H1

Specific description:

- HORIZONTAL set.
- Fire hose cabinet Ø25 mm depending on the model, with CE mark according to EN 671-1 standard.
- Module with alarm call point resettable with bitonal sounder.
- Module for 1 or 2 fire extinguishers of 6 or 9 kg of versatile dust.
- Mixed module for fire extinguisher and call point / sounder.
- Made of steel plate painted red RAL 3000 with doors made of stainless steel AISI 304.

The measures of some sets are:

HORIZONTAL set CR3X (3 modules): 1090 x 610 x 245 mm.
HORIZONTAL set CR3X (2 modules): 930 x 610 x 245 mm.
HORIZONTAL set C4: 936 x 660 x 260 mm.

On-demand can be adapted to the provision which it deems appropriate, as well as the disposition of the module of the call point and sounder, which can be adapted to the configuration that is desired, provided drawings of the holes which should be attached.

Also, the doors has several options: standard, red blind, white blind, red semi blind, white semi blind, completely stainless steel, etc.

CR3X15H2

CR3X17H2

CR3X15H1

Vertical sets
PULEXV

CR3X39V1

Specific description:

- VERTICAL set.
- Fire hose cabinet Ø25 mm depending on the model, with CE mark according to EN 671-1 standard.
- Module with alarm call point resettable with bitonal sounder.
- Module for 1 or 2 fire extinguishers of 6 or 9 kg of versatile dust.
- Mixed module for fire extinguisher can call point / sounder.
- Made of steel plate painted red RAL 3000 with doors made of stainless steel AISI 304.

The measures of some sets are:

VERTICAL set CR3X (3 modules): 630 x 1380 x 245 mm
VERTICAL set CR3X (2 modules): 630 x 910 x 245 mm

On-demand can be adapted to the provision which it deems appropriate, as well as the disposition of the module of the call point and sounder, which can be adapted to the configuration that is desired, provided drawings of the holes which should be attached.

Also, the doors has several options: standard, red blind, white blind, red semi blind, white semi blind, completely stainless steel, etc.

CR3X15V2

CR3X25V3

CR3X18V3

Ø25 fire hose cabinet
CBP2

Fire hose cabinet Ø25 mm according to EN 671-1 and 20 m hose length manufactured according to EN 694:2001.

It is composed by:

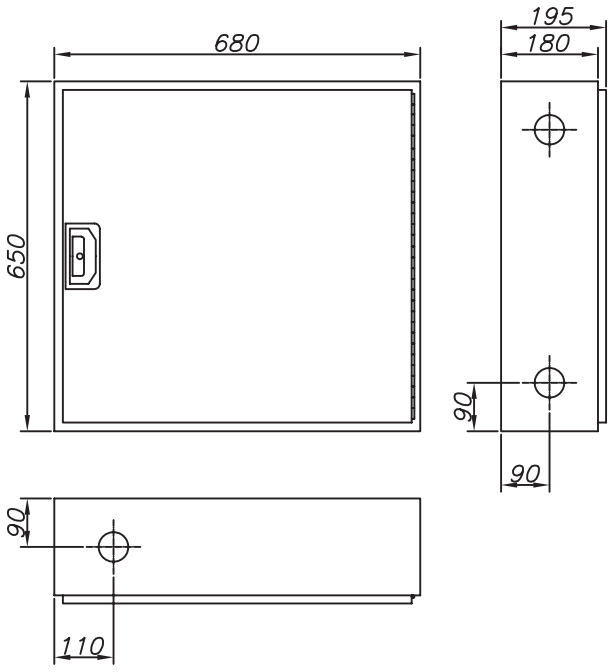
Horizontal cabinet made of 1 mm thickness steel, painted red RAL 3000, measures 680 x 650 x 180 mm, and easy-open lock, provided with support arm fixing and pre-holes for water supply, including reel, hose, nozzle, swing arm, seat valve, manometer and supply hose.

It can be made in another color, with the RAL provided by the costumer, or in stainless steel, and it can be mounted in a floor bow.

Features:

- Reel of Ø525 disks, painted in red RAL 3000.
- Semi-rigid hose Ø25 mm and 20 m length, manufactured according to EN 694:2001 standard.
- Nozzle Variomatic Ø25 of three positions; close, spray and jet, made of red plastic.
- Seat valve at 110° of 1", with ¼" manometer outlet.
- Non-return valve for manometer of ¼".
- Manometer graduated from 0 to 16 bars.
- Supply trigger between valve and reeling frame, with a Ø25 mm semi-rigid hose.

The fire hose cabinet can be made with blind door (CBP2PC), stainless steel blind door (CBP2PCI) and semi-blind door (CBP2PS).



Ø25 fire hose cabinet
CBP3

Fire hose cabinet Ø25 mm according to EN 671-1 and 20 m hose length manufactured according to EN 694:2001.

It is composed by:

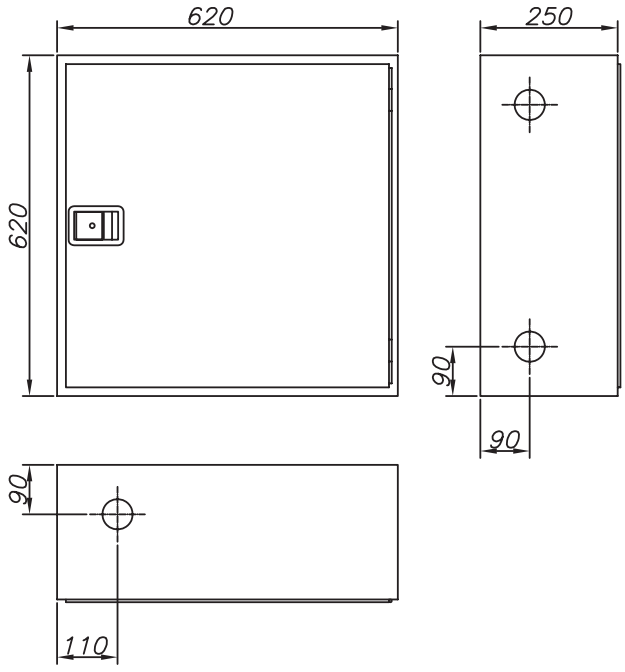
Horizontal cabinet made of 1 mm thickness steel, painted red RAL 3000, measures 620 x 620 x 245 mm, and easy-open lock, provided with support arm fixing and pre-holes for water supply, including reel, hose, nozzle, swing arm, seat valve, manometer and supply hose.

It can be made in another color, with the RAL provided by the costumer, or in stainless steel, and it can be mounted in a floor bow.

Features:

- Reel of Ø450 disks, painted in red RAL 3000.
- Semi-rigid hose Ø25 mm and 20 m length, manufactured according to EN 694:2001 standard.
- Nozzle Variomatic Ø25 of three positions; close, spray and jet, made of red plastic.
- Seat valve at 110° of 1", with ¼" manometer outlet.
- Non-return valve for manometer of ¼".
- Manometer graduated from 0 to 16 bars.
- Supply trigger between valve and reeling frame, with a Ø25 mm semi-rigid hose.

The fire hose cabinet can be made with blind door (CBP3PC), stainless steel blind door (CBP3PCI) and semi-blind door (CBP3PS).



Ø25 fire hose cabinet
CBF4

Fire hose cabinet Ø25 mm according to EN 671-1 and 20 m hose length manufactured according to EN 694:2001.

It is composed by:

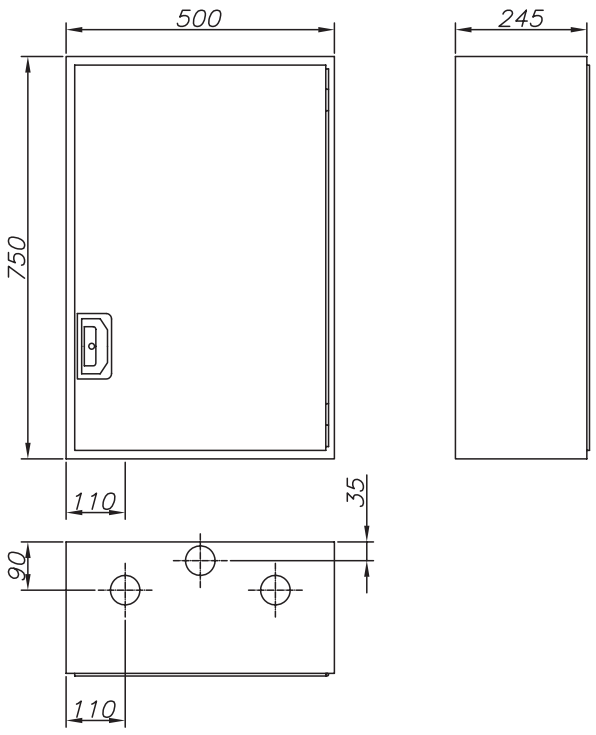
Vertical cabinet made of 1 mm thickness steel, painted red RAL 3000, measures 750 x 500 x 245 mm, and easy-open lock, provided with pre-holes for water supply, including reel, hose, nozzle, swing arm, seat valve, manometer and supply hose.

It can be made in another color, with the RAL provided by the costumer, or in stainless steel, and it can be mounted in a floor bow.

Features:

- Reel of Ø450 disks, painted in red RAL 3000.
- Semi-rigid hose Ø25 mm and 20 m length, manufactured according to EN 694:2001 standard.
- Nozzle Variomatic Ø25 of three positions; close, spray and jet, made of red plastic.
- Seat valve at 110° of 1", with 1/4" manometer outlet.
- Non-return valve for manometer of ¼".
- Manometer graduated from 0 to 16 bars.
- Supply trigger between valve and reeling frame, with a Ø25 mm semi-rigid hose.

The fire hose cabinet can be made with blind door (CBF4PC), stainless steel blind door (CBF4PCI) and semi-blind door (CBF4PS).



Ø45 fire hose cabinet of 15 and 20m
P6415 / 20

Fire hose cabinet Ø45 mm according to EN 671-2 standard with 15 m (P6415) or 20 m (P6420) of plane hose manufactured according to UNE 23.091/2A.
It is composed of:

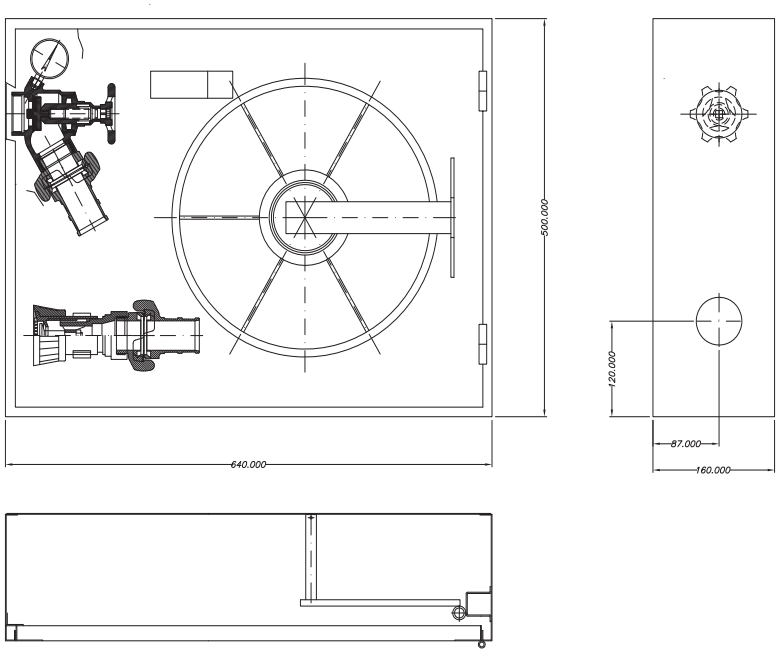
Horizontal cabinet built of 1 mm steel plate thickness, painted in red RAL 3000, measures 640 x 500 x 160 mm, with semi-blind door for polystyrene, and easy-open lock, provided with support arm fixing and pre-holes for water supply, including reel, hose, nozzle, swing arm, seat valve, manometer and supply hose.

It can be made in another color, with the RAL provided by the costumer, or in stainless steel, and it can be mounted in a floor bow.

Likewise, under command, the door design has some options: standard, red blind, white blind, white semi-blind, totally stainless, etc.

Features:

- Reeling frame with Ø350 mm .
- Plane hose of Ø45 mm and 15 or 20 m length, manufactured according UNE 23.091/2A and CE mark, with adaptors manufactured according UNE 23.400 of Ø45, slight use.
- Seat valve at 120° output, made of brass, with threads of 1 ½" and adaptor according to UNE 23.400, slight use.
- Manometer graduated from 0 to 25 bars.
- Hose nozzle of three positions: close, spray and jet, connected to the end of the hose by slight use adaptors.

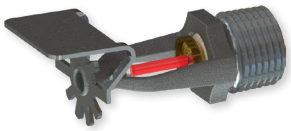


Automatic sprinklers

SPRINKLERS



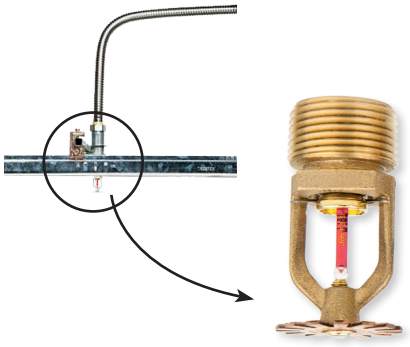




AUTOMATIC SPRINKLERS
The sprinklers are an automatic system of fire control, which are activated because of an increase in temperature produced by a fire. They are controlled by an alarm check valves, which is also responsible for activating the fire alarm.

Temperature and color range (of the bulb):

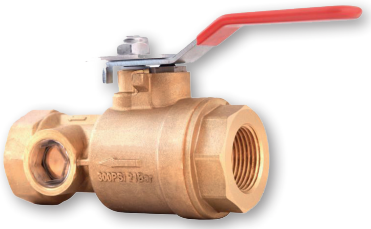
Red:	68°C
Yellow:	79°C
Green:	93°C
Blue:	141°C
Black:	260°C



Flexible connection system

Alarm and control equipment for sprinkler system. Water remains pressurized in the pipes and is released over the fire area after the sprinkler is activated by the fire. The pressure switch sends alarm information to the fire warning system or automation system. After the pressure switch is activated, the water passes to the water motor gong and triggers a mechanical alarm.

Valve for testing and maintenance of sprinkler systems. It is also used as a drainage valve to discharge water into the pipeline.



Butterfly valve used as a shut-off valve for water supply lines to disconnect areas in a sprinkler circuit.

Device used to detect a continuous flow of water in the sprinkler installation when the sprinklers have been activated, and send an alarm.

Outdoor fire hydrants
FIRE HYDRANTS

It is an output of water equipment, located in the environs of buildings to protect and which fire brigade can couple their hoses. They can be surface or buried (manhole).

DRY PIPE HYDRANT

MANHOLE HYDRANT

WET PIPE HYDRANT

CAI2L / CAI2LL:

Cabinet to store auxiliary equipment for a fire hydrant (according to supplied CEPREVEN).

Equipment:

1 Ø70 hose with 15 m length with adaptor
2 Ø45 hose with 15 m length with adaptor
1 Ø70 nozzle with 3 positions with adaptor
2 Ø45 nozzle with 3 positions with adaptor
1 bifurcation 1x70 to 2x45
1 reduction de 70 to 45

Exclusive firefighter extinguishing system
DRY PIPE

The dry pipe is a fire installation of exclusive firefighter use, consisting of a vertical 3" pipe with water connections in the different floors of the building fire.

This pipe delivers water from an initial entry on the floor at street level, to the different connections on the floors of the building.

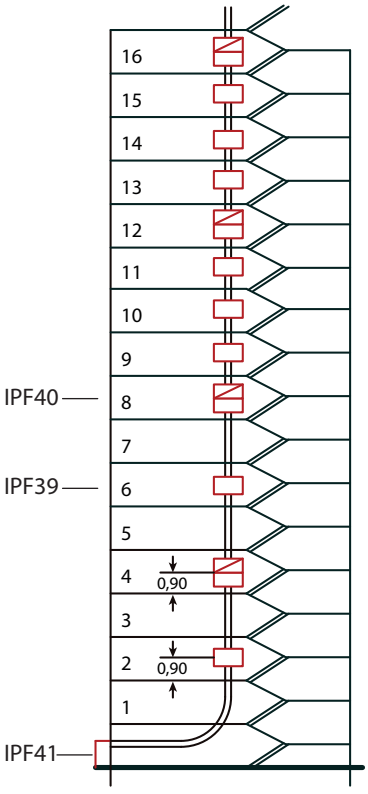
- IPF 41: Connection on the building front in cabinet or manhole with inscription "Use exclusive fire department", consisting of a twin connection of 2 inputs Ø70 mm.
- IPF 39: Output in floor building installed in cabinet or manhole, consisting of a twin connection of 2 outputs of Ø45mm
- IPF 40: Output in floor building with the same features of IPF39, with cut valve in the main pipe.

Installation according to R/D 513/2017.

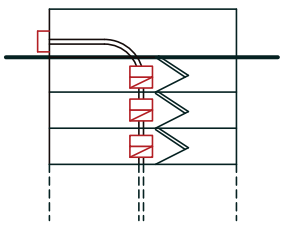
IPF41


IPF39


IPF40



Ascending dry pipe


Descending dry pipe

ABC powder and CO_2 extinguishers
EXTINGUISHERS

First responders equipment for little fires. There are 3 types:

- ABC versatile powder extinguishers.
- Carbon dioxide extinguishers (CO_2).
- Water extinguishers.

Extinguisher cabinets made of sheet steel with different finishes

Fire blanket bracket

First aid kit bracket

Pump equipment

Automatic pumping equipment for fire-fighting systems with electric and diesel engines.

This equipment is typically used to supply water to fire hydrants, fire hydrants, etc.

The equipment complies with the following standards:

UNE 23-500-90
UNE-EN 12845
UNE 23500-2012
UNE 23500-2018
CEPREVEN RT2 ABA
CEPREVEN RT1-ROC

General configuration of the equipment:

- Baseplate for equipment up to 50hp
- Discharge manifold
- Protection and control panel according to standards
- Valves, pressure switches and accessories according to regulations
- 24 or 50l membrane accumulator
- Auxiliary jockey pump
- Battery kit for diesel engines
- Wiring and connections

HEADQUARTERS

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