

AKO-55424

Trapped person alarm

User Manual



AKO

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AKO Electromecánica thanks and congratulates you for purchasing our product, in whose development and manufacture the most innovative technology has been used, as well as strict production and quality control processes.

Our commitment to satisfy our customers and our continuous efforts to improve every day can be seen in the various quality certifications we have obtained.

This is a high performance, high technology product. The operation and final performance of the equipment depend on proper planning, installation, configuration and commissioning. Read this manual carefully before installation, and always follow its instructions.

Only qualified personnel should install or perform technical assistance on this product.

This product is designed to be used in the applications described in the product manual. AKO Electromecánica gives no guarantee of its operation in any use not foreseen in the manual, and is not responsible for any damage resulting from improper use, configuration, installation or commissioning.

It is the responsibility of the installer and the customer to comply with and ensure others comply with all regulations applicable to installations incorporating our products. AKO Electromecánica is not responsible for any damage caused by non-compliance with regulations. Follow strictly the instructions given in this manual.

To maximise the service life of our equipment, these recommendations should be followed:

Do not expose electronic equipment to dust, dirt, water, rain, humidity, high temperatures, chemicals or corrosive substances of any sort.

Do not submit the equipment to blows or vibrations nor try to manipulate it differently from shown in the manual.

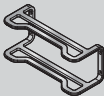
Never exceed the specifications and limitations indicated in the manual.

Always respect the specified ambient working and storage conditions.

During and after installation, avoid leaving loose, broken, unprotected or damaged wiring, since they might constitute a risk for the equipment and its users.

AKO Electromecánica reserves the right to make any non-metrology modification to the documentation or the equipment without previous notice

1.- Versions and references

MODEL	DESCRIPTION	POWER SUPPLY
AKO-55424	Station alarm for 4 chambers	100-240 V~ 50/60 Hz
AKO-55326	Luminous push-button	-
AKO-58120	Protector for push-button	-
AKO-55424  AKO-55326  AKO-55326 		 AKO-58120

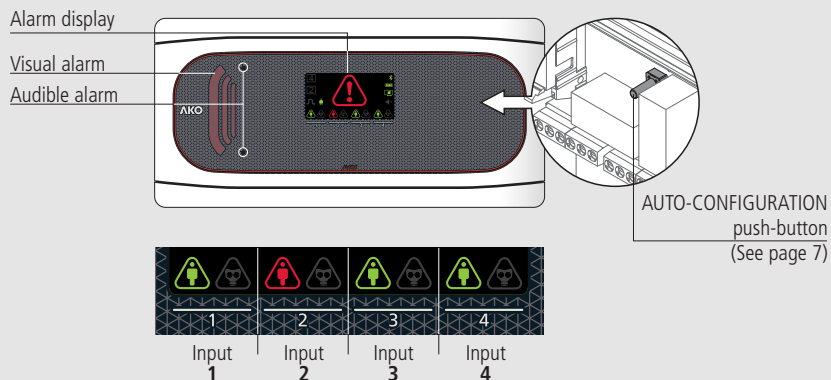
2.- Warnings



-The alarm and push-buttons should be installed in a place protected from vibrations, water and corrosive gases, where the ambient temperature does not exceed the value indicated in the technical data. The station should be located in a monitored area, where it is guaranteed that people able to alert to the presence of alarms will be present.

-Neither the alarm nor the push-button are suitable for areas classified as potentially explosive.

3.- Equipment description



Indicators



Constant green: Trapped person push-button connected.



Quick-flashing red: Malfunction / wiring fault in push-button.

Slow-flashing red: Push-button not detected or disconnected.

Constant red: Trapped person alarm activated.



Constant: Alarm activated

Flashing: Malfunction / wiring fault in trapped person push-button.



Power supply present

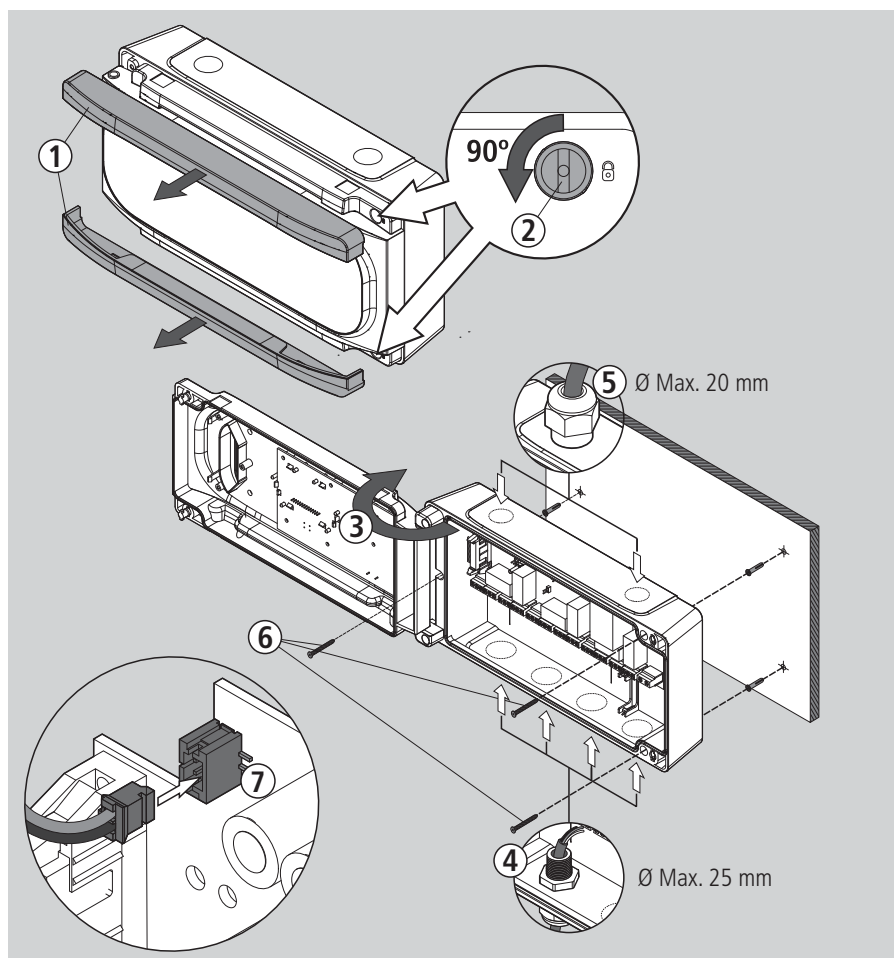


Constant green: Battery connected

Switched off: Battery disconnected

4.- Installation

- Remove the bezels (1) from the device.
- Loosen the screws (2) with a 1/4 turn and open the cover (3).
- Drill the holes needed for the cable entry glands using the pre-stamped centres on the sides of the housing for guidance. Fix the glands onto the device (4 and 5).
- Make 3 holes in the wall with the aid of the template included.
- Fix the device to the wall using the screws and plugs supplied (6).
- Insert the cables into the glands and wire the device following the diagram on page 6.
- **Connect the battery (7) before closing the cover.**
- Close the cover (3), insert and tighten the screws (2) and replace the bezels (1).



Wiring



The wiring between the push-button and the station must **NEVER** be installed in a conduit alongside power, control or supply cables.

Always disconnect the power supply to carry out wiring.

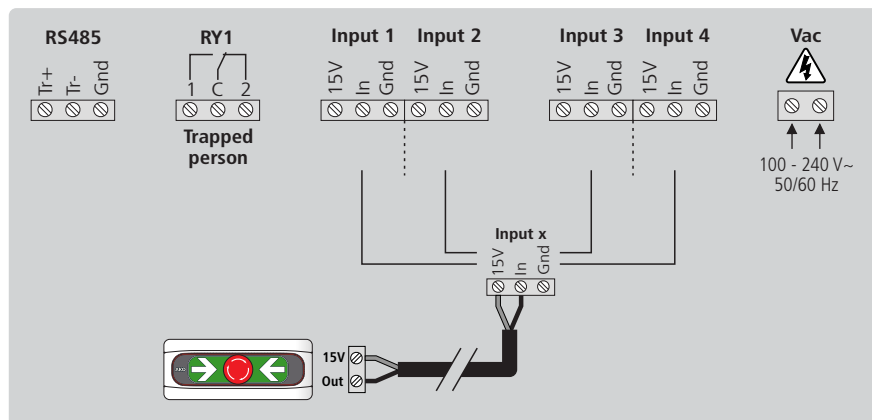
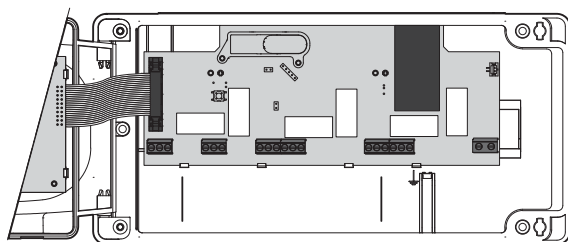
For disconnection, the power supply circuit must be equipped with a switch of at least 2 A, 230 V, located near the device. The power supply cable will be H05VV-F or NYM 1x16/3. The section to be used will depend on current local regulations, but should never be less than 1.5 mm².

Cables for wiring the relay contact should have the relevant section for the device to be connected.

The 120 / 230 V~ wiring area must be kept clear of any other external element

Ensure that you have connected the batteries before starting up the device.

Certain international standards indicate that alarm power supply should originate from a different circuit to that used for the refrigeration and ventilation system. **Be sure to comply with current local regulations.**



5.- Configuration

Input auto-detection

Step 1

When receiving a power supply for the first time, the alarm enters INPUT AUTO-DETECTION MODE, lighting up the input indicators sequentially in green.

Step 2

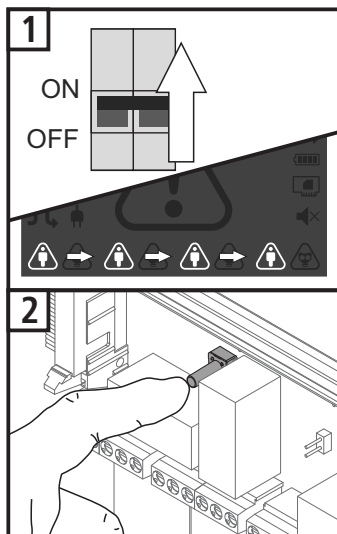
Begin AUTO-DETECTION by pushing the 'AUTOCONFIG' push-button for 5 seconds (See page 4). At the end of the process, the alarm will emit 5 short beeps and will begin to function normally.



For correct input detection, all devices must be correctly connected and in NO ALARM mode.



Once the alarm has been configured, this function will not be activated again. To activate it again, disconnect the power supply, connect it again and press the "AUTOCONFIG" pushbutton 5 times consecutively within 2 minutes and repeat step 2 within another 2 minutes.



Self-diagnosis function

The device incorporates a self-diagnosis system which informs the user in the event of a push-button malfunction or if there are wiring errors.

If a malfunction is detected, the alarm will emit 3 short beeps every 2 minutes and the corresponding input indicator will flash red.

MODBUS parameter reset

To revert MODBUS parameters to factory settings, activate the INPUT AUTO-DETECTION function and press the 'AUTOCONFIG' push-button 5 consecutive times.

MODBUS parameters can only be modified using **AKONET** software.

6.- Operation

No alarms

The input indicators are green.

Alarm activated

The station emits an audible alarm sound, shows the affected input(s) in red, the general alarm indicator illuminates and the visual alarm flashes.

Wiring error / malfunction

The station emits 3 short beeps every two minutes and the input indicator affected flashes red.

		ALARM STATION						
STATUS								Relays Trapped person
No alarms	With power supply Battery connected				*		OFF	
	With power supply Battery disconnected				*		OFF	
	No power supply / With battery				*		OFF	
	No power supply / No battery				*		OFF	
	Alarm activated (Push-button activated)	-	-		*		Bi-tonal sound	
	Detector / wiring fault	-	-		*		3 tones every 2 minutes	

* The input indicator corresponding to the activated button will turn on.

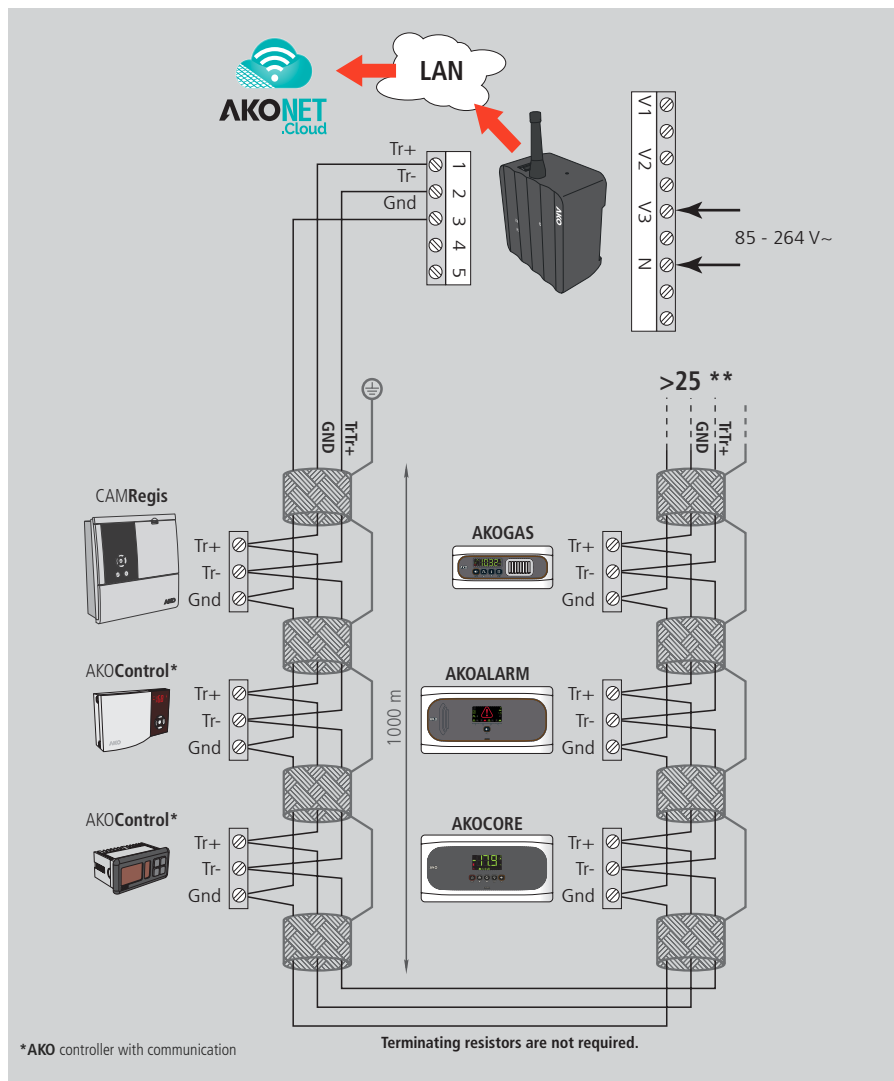
7.- Maintenance

- Clean the device surface with a soft cloth, water and soap
- Do not use abrasive detergents, petrol, alcohol or solvents, as this could damage the sensor.

8.- Connectivity

The alarms are equipped with a port for connection of RS485 (MODBUS) data, which allows for remote management of these using a AKO-5010, AKO-5025, AKO-5041 or AKO-5051 gateway.

The MODBUS address is factory-set and is indicated on the rating plate located on the left side of the alarm. This address must be different for each device within the same network. The address can be modified using **AKONET** software. Once modified, the original address indicated on the plate will no longer be valid.



9.- Technical specifications

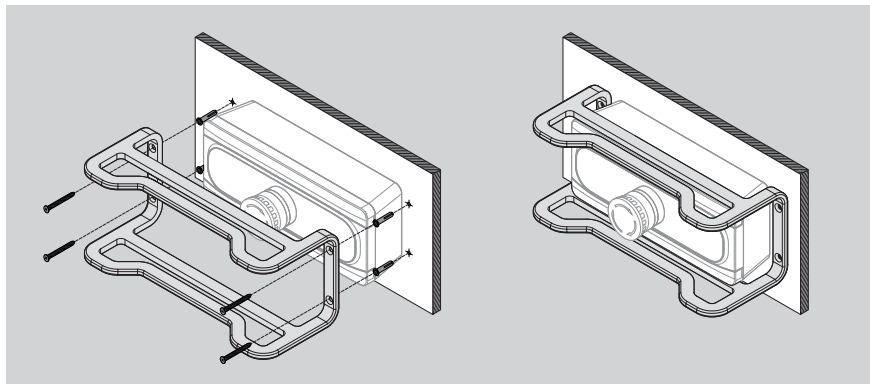
Power supply	100-240 V~ 50/60 Hz
Maximum input power	15 W
Accumulators	Ni-MH 1.6 Ah
Lighting + alarm autonomy	> 10 Hours (*)
No. of inputs.....	4
Compatibility of inputs.....	AKO-55326 push-button
Relays.....	SPDT 8(2)A 250 V~
Working ambient temperature.....	-5 °C to 50 °C
Storage ambient temperature	-30 °C to 60 °C
Protection degree	IP 65
Installation category	II s/ EN 61010-1
Pollution degree	II s/ EN 61010-1
Double isolation between power supply, secondary circuit and relay output.	
Sound power.....	90 dB(A) at 1 metre
MODBUS address.....	Shown on label
Maximum push-button cable distance	300 m
Dimensions.....	290 mm (W) x 141 mm (H) x 84.4 mm (D)

*Duration in alarm status at an ambient temperature of between 25 °C.

10.- Accessories

Protector AKO-58120

Protects **AKO-55326** push-button from possible impact.



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