AKO

en 5552H412 Ed.04

Gas leak detection + trapped person alarm

Quick guide

AKO-555241 **AKO-558241**
AKO-555242 **AKO-558242**

Warnings

-The alarm and the transmitters / detectors 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 installed 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 gas transmitter / detector are suitable for areas classified as potentially explosive.

-Transmitters / detectors measure gas concentration at a given point. If the gas leak does not reach the transmitter / detector, the alarm will not be activated.

-Transmitters / detectors cannot supervise areas. If perimeter supervision is required, several transmitters / detectors should be installed surrounding the area to be supervised.

-Thoroughly studying transmitters' / detectors' location is recommended, bearing in mind the areas most vulnerable to suffering leaks, the type of gas used, the size and shape of the room, air flows, maintenance work, etc.

-The **EN-378** and **F-GAS** international standards require that correct transmitter / detector functioning be checked at least once per year. Review what current local regulations specify for these cases. **Consult the appropriate verification method in the transmitter / detector manual.**

Work conditions:

-Avoid handling refrigerant gases near the transmitter / detector. Do not paint the transmitter / detector or place it near solvents or paints. Exposure to acetone vapours may cause false alarms.

-The transmitter / detector should be installed away from:

-Smoke outlets located in or originating from engines, generators or motorised machinery (fork-lift trucks, etc.).

-Particularly damp areas or with strong ventilation.

Wiring

Always disconnect the power supply to carry out wiring.

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

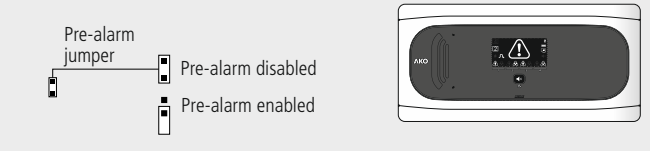
For disconnection, the power supply circuit must be equipped with a switch of at least 2 A, 230 V, located near the device. The power supply cable will be H05VV-F or NYM 1x16/3. The section to be used will depend on current local regulations, but should never be less than 1.5 mm^2.

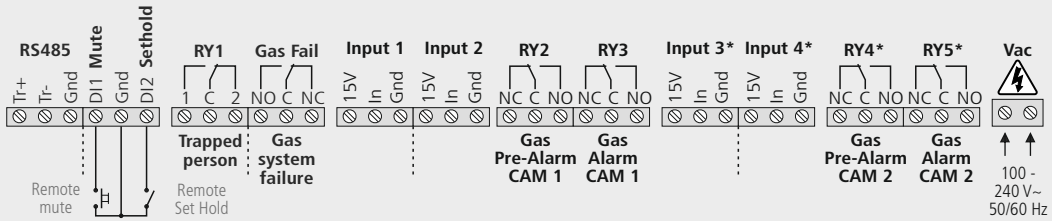
Cables for wiring the relay contact should have the relevant section for the device to be connected

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

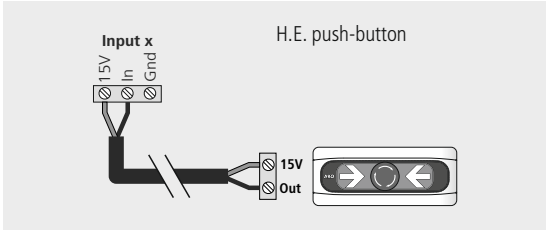
Make sure you have connected the batteries before starting up the device. (AKO-558xxx models are not equipped with batteries.).

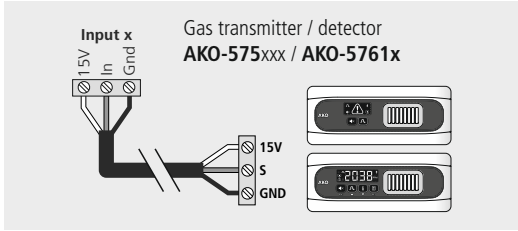
Certain international standards indicate that alarm power supply should originate from a different circuit to that used for the refrigeration and ventilation system. **Be sure to comply with current local regulations.**





*Only **AKO-555242 / 558242**





Technical specifications

Power supply .....100-240 V~ 50/60 Hz
Maximum input power .....15 W
Accumulators (Only AKO-555xxx) .....Ni-MH 1.6 Ah
Lighting + alarm autonomy (Only AKO-555xxx) .....> 10 Hours (*)
No. of inputs **AKO-555241/558241** 2
AKO-555242/558242 4
Compatibility of inputs **AKO-52326, AKO-5761x, AKO-575xxx**
Relays .....SPDT 8(2)A 250 V~
Working ambient temperature .....-5 ºC to 50 ºC
Storage ambient temperature .....-30 ºC to 60 ºC
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)

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We reserve the right to supply materials that might vary slightly to those described in our Technical Sheets. Updated information is available on our website.

Configuration

Step 1:
Connect the station power supply. Input indicators illuminate sequentially.

Step 2:
Press the "AUTOCONFIG" push-button for 5 seconds; the alarm will emit 5 short tones. Configuration is complete.

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

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.

Once configured, the display shows in green the indicator corresponding to the device detected at each input:

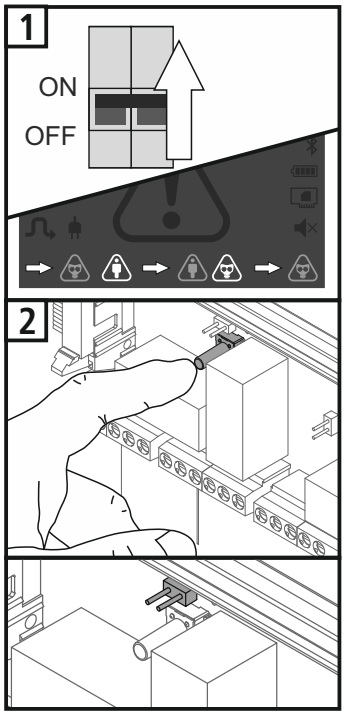
Luminous push-button Gas detector / transmitter

Pre-alarm jumper
Activates / deactivates pre-alarm detection. Before using this option, ensure that regulations allow for two alarm levels.

Pre-alarm enabled

Pre-alarm disabled

When using the ammoniac or CO_2 detector, the pre-alarm must be enabled.



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.

Gas alarm saved
An alarm has sounded in the past.
The affected input indicator flashes green.

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

Short-circuit in an input
The affected input indicator will flash red and the input will be disabled. The general alarm indicator will also flash. Once the problem has been resolved, to re-establish functioning of the affected input, press the Mute button for more than 1 second.

Alarm tones:
- Trapped person alarm / gas alarm: Bi-tonal sound.
- Gas pre-alarm: Intermittent sound.
- Wiring error / malfunction: 3 short beeps every 2 minutes.

MUTE Function
Cancels alarm tone in the event of gas pre-alarm or alarm. To activate it, press the Mute key.
Does not affect relay or indicator functioning.
Trapped person alarms cannot be silenced.
Indicator is shown on the display

Set Hold Mode
Avoid false alarms during the chamber charging or cleaning process.
When this mode is activated, pre-alarms will not sound and alarms will sound like pre-alarms to all effects (sound, relay and signal activation).
To activate / deactivate it, press the Mute key for 3 seconds; the display will show indicator .
Unless it is manually deactivated, this mode will remain activated for a maximum of 5 hours, before automatically deactivating itself.

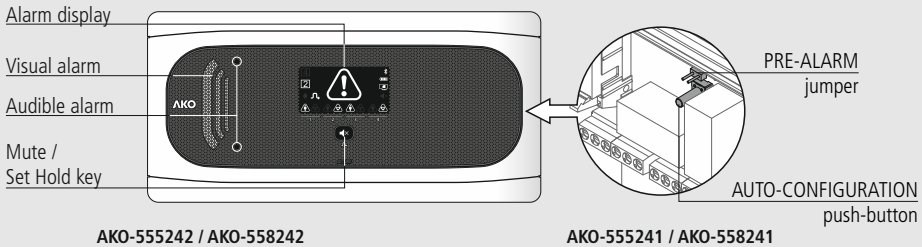
Maintenance Mode
Disables gas pre-alarms and alarms for 1 hour for maintenance tasks.
When it is activated, no gas pre-alarm or alarm will sound.
To activate / deactivate it, press the Mute key for 6 seconds; indicator will flash.

In the event of a power failure, the gas detectors will disconnect to extend battery duration and the corresponding indicator will switch off on the display
Trapped person alarm inputs will continue to operate until their batteries run flat.

Relays
See accompanying table

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

Description



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Input **1** | Input **2** | Input **3** | Input **4**

AKO-555241 / AKO-558241

Input **1** | Input **2**

Pressing for 3 seconds activates / deactivates the Set Hold mode.
Pressing for 6 seconds activates / deactivates the maintenance mode
Pressing briefly deletes saved alarms

For gas alarm, pressing briefly silences the alarm tone.
Trapped person alarms cannot be silenced.

Green constant: Gas transmitter / detector connected.
Flashing green: Gas pre-alarm / alarm saved
Quick-flashing red: Malfunction / wiring fault in gas transmitter / detector.
Slow-flashing red: Gas transmitter / detector not detected or disconnected.
Constant red: Gas pre-alarm / alarm activated.

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: CAMM module in operation
Flashing: CAMM module malfunction.

Constant: Gas pre-alarm / alarm / trapped person alarm activated.
Flashing: Malfunction / wiring fault in detector / transmitter / push-button.

Constant: Set Hold mode activated
Flashing: Maintenance mode activated

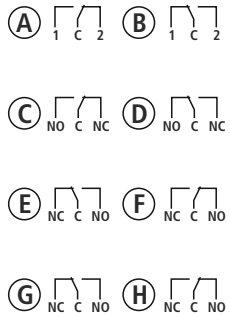
Constant green: Battery connected
Switched off: Battery disconnected *

Power supply present

Gas alarm silenced

Bluetooth activated (Only with CAMM module)

STATUS		Relays			
		Trapped person	System failure	Gas Pre-alarm 1 / 2	Gas Alarm 1 / 2
Without alarms	With power supply Battery connected *	A	C	E	G
	With power supply Battery disconnected *	A	C	E	G
	No power supply / With battery *	A	C	E	G
	No power supply/ No battery	B	D	E	G
Trapped person alarm activated		B	C	E	G
Gas pre-alarm activated		A	C	F	G
Gas alarm activated		A	C	E	H
Wiring fault in gas detector		A	D	E	G



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