

48CLU003 VISUAL-AUDIBLE WARNING SIGN EN54-3/23

DESCRIPTION:

Visual-audible fire alarm warning sign.

Surface mounted or partially recessed to reduce protrusion from wall surface. Accepts cable glands up to 20 mm in diameter. In case of partially recessed installation, it is not necessary to install the base and the sign can be fixed to a 3 module back box. In this case the dimensions are 275x135x25mm.

High performance and low energy consumption thanks to high-efficiency LED illumination.

EN54-3 and EN54-23 certified.

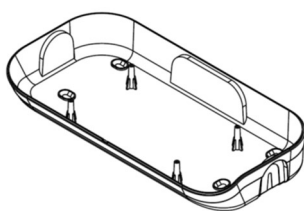


DOP N°301/2018

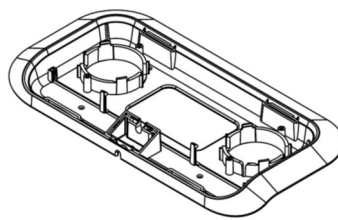
Comelit Group S.p.A.
Via Don Arrigoni 5 - 24020 Rovetta
S. Lorenzo BG Italy
tel. +39 0346 750 011
fax +39 0346 71436
info@comelit.it

The sounder and the sign illumination are controlled by two independent microcontrollers to ensure maximum reliability and performance. The visual alarm is provided by a high-efficiency LED. Possibility to synchronise multiple devices using a dedicated line, with the master device designated automatically when the system is first powered on. Backlighting of the sign is using high-efficiency red LEDs that allow selection of a low power mode that halves the current drawn by the LEDs, while maintaining good legibility. The sounder is provided by a piezoelectric cone with low power consumption. The use of a dedicated microcontroller means that 16 different tones can be selected during installation using the DIP switches. There is also a dedicated input for a second tone or "all clear" tone. The sounder can be totally excluded by way of a jumper.

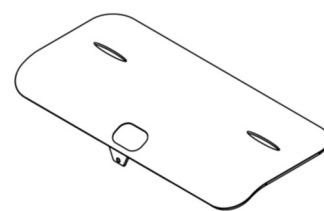
INSTALLATION:



Base



Sign holder



Cover

The device can be installed in two ways: surface mounted or partially recessed.

SURFACE MOUNTED COMPLETE WITH BASE: Knock out one or more of the 4 cable entry holes, choosing from the 2 upper and two lateral holes; it is advisable to use a cable gland with maximum diameter 20 mm. Drill 4 holes in the wall at the centres indicated on the rear of the base (190mm x 65mm); fix the base to the wall using suitable wall plugs and screws (we recommend using 6 mm plugs). Fix the sign holder housing the circuit to the base using the 4 screws provided, routing the wires through the cable entry in the base.

PARTIALLY RECESSED: Drill 4 holes in the wall at 130mm x 74mm centres, taking care to centre the cable with the cable entry hole in the back of the sign holder. Fix the sign holder using suitable wall plugs and screws (we recommend using 6 mm plugs).

CONNECTIONS AND SETTINGS:

VIN +: power supply positive (2 identical terminals for multiple connections)

VIN -: power supply negative (2 identical terminals for multiple connections)

2°TN: A negative command signal on this terminal activates the second alarm "all clear" tone (see tones table)

Sout: Output terminal for propagation of the synchronization signal of the visual alarm. To ensure synchronization, connect this output to the Sin terminals of the next devices. Connections can be made in a cascade, star or mixed configuration. Designation of the master device is automatic in accordance with the Sin connection.

Sin: Input terminal for synchronization signal. If left unconnected, the device will behave as the master device and will generate the synchronization signal for the next devices on the Sout terminal. If connected to the Sout terminal of another device, the device will behave as a slave, receiving the synchronization signal and re-generating it on the Sout terminal for the next device.

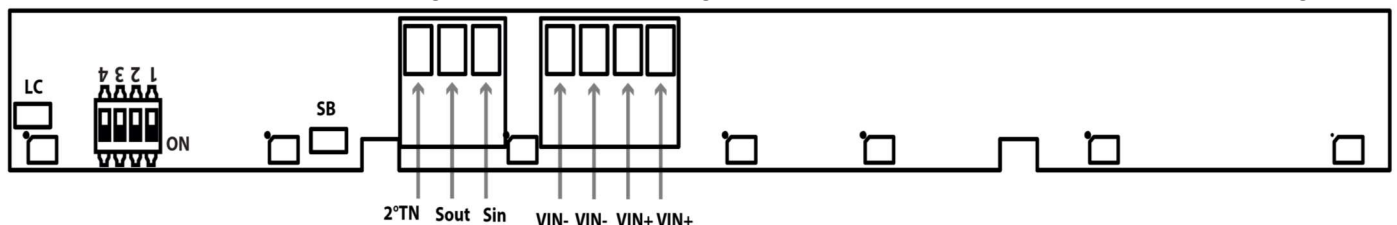
NB: At least 1 device must operate as a master device and therefore have nothing connected to the Sin terminal. In systems with more than one master, different synchronization lines cannot be mixed.

SB: Sounder exclusion jumper: If left open, the sounder will be completely excluded.

LC: Low power consumption mode jumper: If left open, the device will consume less power by halving the intensity of the sign backlighting. For details on power consumption in the various configurations, refer to the table.

DIP-SWITCHES 1 2 3 4: Switches for selecting the desired sounder tone. Refer to the table for details of the tones available, the SPL levels obtainable and the relative power consumption.

CLOSURE: Fit the transparent cover containing the sign, inserting first in the top clips and then rotate it downwards to clip the bottom edge in place. Fit and tighten the screw in the centre of the bottom edge.



PERFORMANCE:

Protection rating: IP21C (type A) (From -10°C to +55°C);

Power supply voltage: 24Vdc (from 19Vdc to 30Vdc);

Power consumption: see table;

Category W-3,6-9;

ABS V0 plastic and polycarbonate;

EN54-23 visual alarm signalling: White LED light with synchronization;

Temporal pattern and flashing frequency: 0.2s ON 0.8s OFF (1Hz);

Multi-tone sounder with 4 certified tones;

Guideline sound level between 71 and 91dB. See tones table (surface mounted);

Reference standards: EN54-3:2001+A1:2002+A2:2006 for sounder, EN54-23:2010 for visual alarm.

VISUAL-AUDIBLE MODEL (48CLU003)

N°	DESCRIPTION OF THE SOUNDER MODEL	DIP SWITCH				EN54-3	Typ SPL @1m dB	I _{Typ} @24V _{dc} LC closed	I _{Typ} @24V _{dc} LC open	I _{Typ} @24V _{dc} Without backlighting
		1	2	3	4					
1	800Hz/1000Hz @1Hz Sweeping	O	O	O	O	✓	78*	58 mA	48 mA	38 mA
2	2400Hz/2900Hz @2Hz alternating	O	O	O	I	✓	84*	61 mA	51 mA	41 mA
3	544Hz (100mS)/440Hz (400mS)	O	O	I	O	✓	71*	56 mA	46 mA	36 mA
4	2200Hz/3000Hz @7Hz Sweeping	O	O	I	I	✓	82*	60 mA	51 mA	41 mA
5	800Hz/1000Hz @4Hz alternating	O	I	O	O	-	83	58 mA	49 mA	39 mA
6	From 500Hz to 1200Hz in 3s + 0.5s silence	O	I	O	I	-	82	55 mA	46 mA	36 mA
7	2000Hz/3500Hz @1Hz alternating	O	I	I	O	-	91	61 mA	52 mA	42 mA
8	500Hz/1200Hz/500Hz @0.3Hz Sweeping	O	I	I	I	-	83	57 mA	48 mA	38 mA
9	660Hz 150ms ON 150ms OFF	I	O	O	O	-	81	53 mA	43 mA	33 mA
10	970Hz 500ms ON 500ms OFF	I	O	O	I	-	80	53 mA	44 mA	34 mA
11	2900Hz 500ms ON 500ms OFF	I	O	I	O	-	91	54 mA	45 mA	35 mA
12	420Hz 0.625ms ON 0.625ms OFF	I	O	I	I	-	82	52 mA	43 mA	33 mA
13	2200Hz 0.3s 1800Hz 0.3s 1500Hz 0.3s	I	I	O	O	-	88	61 mA	52 mA	42 mA
14	From 1500Hz to 1800Hz in 1s from 1800Hz to 1500Hz in 0.5s	I	I	O	I	-	84	61 mA	51 mA	41 mA
15	1200Hz/500Hz @1Hz Sweeping	I	I	I	O	-	84	57 mA	48 mA	38 mA
16	2400Hz continuous	I	I	I	I	-	88	60 mA	51 mA	41 mA
2nd tone	1000Hz continuous	-	-	-	-	-	84	59 mA	49 mA	39 mA

* See table of EN54-3 sound levels for details at the various angles.

EN 54-3 SOUND LEVELS

Comelit 48CLU003 vertical plane – L _{AFmax} [dB(A)] @ 1 m							
Sounder Mode	Power supply	Angle					
		15°	45°	75°	105°	135°	165°
Tone 1	19V	70.7	71.8	74.1	73.7	72.2	70.1
	30V	75.2	76.0	78.5	78.3	76.6	74.3
Tone 2	19V	72.8	76.5	79.9	81.0	76.3	71.4
	30V	76.1	81.0	84.3	84.1	80.3	74.9
Tone 3	19V	65.9	67.8	67.6	68.4	69.0	64.6
	30V	70.2	72.2	71.7	72.7	73.3	69.0
Tone 4	19V	72.3	77.3	79.1	79.5	77.5	74.2
	30V	76.1	81.1	82.9	83.3	81.3	78.1

Comelit 48CLU003 horizontal plane – L _{AFmax} [dB(A)] @ 1 m							
Sounder Mode	Power supply	Angle					
		15°	45°	75°	105°	135°	165°
Tone 1	19V	67.4	72.0	72.7	74.2	72.3	69.5
	30V	71.9	75.3	77.8	79.9	77.2	72.7
Tone 2	19V	70.6	77.9	79.5	79.6	81.1	78.4
	30V	75.3	81.7	83.0	83.5	85.8	82.2
Tone 3	19V	65.6	68.0	69.0	68.0	68.6	66.9
	30V	69.5	71.9	72.8	71.6	72.3	71.3
Tone 4	19V	72.4	76.7	78.5	77.7	79.6	75.9
	30V	76.1	80.6	82.4	81.7	83.8	79.6