PANASONIC FIRE ALARM SOLUTIONS
TECHNICAL DESCRIPTION
4482

ADDRESSABLE WALL VAD WITH SIREN AND ISOLATOR

DOCUMENT INFORMATION

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1 INTRODUCTION

This document describes the Addressable VAD with siren and isolator, type number 4482.
The document contains information about the product and instructions on how to mount and connect it.

2 ABBREVIATIONS

LED	Light Emitting Diode	
SPL	Sound Pressure Level	
VAD	Visual Alarm Device	

3 GENERAL DESCRIPTION

Addressable VAD with siren and isolator is certified to EN 54-3, EN 54-17, EN 54-23.
It can be used in indoor environment, type A. For example corridors, offices, toilets, and other public areas.
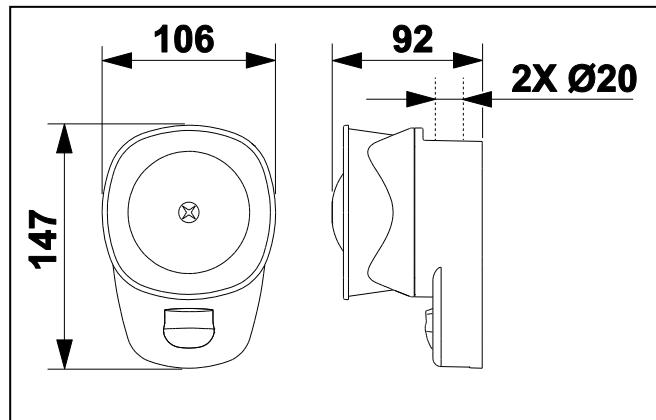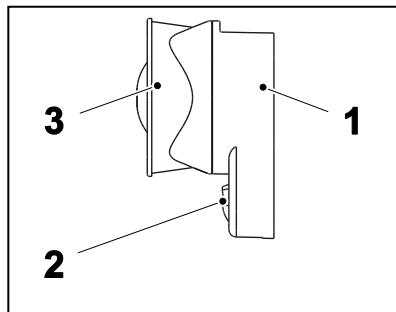
1) Base
2) LED
3) Siren

3.1 BASE

Wall mounted.

3.2 LED

DATA

LED colour	Red		
VAD coverage - high power	5.0m x 5.0m	W-2.4-5.0 (60 m³)	The VAD must be mounted so that the LED is placed at a maximum height of 2.4 meters.
VAD coverage - low power	2.5m x 2.5m	O (13 m³)	Note, category O must be wall mounted so that the LED is placed at a maximum hight of 2.1 meters
Flash rate selections	0,5 Hz or 1 Hz	Soft configured in EBLWin	
VAD coverage selection method		Soft configured in EBLWin	

LIGHT PATTERN

		VAD coverage	
		Hi Power	Low Power
Frequency/ Flash rate	1 Hz	100 ms ON, 900 ms OFF	50 ms ON, 950 ms OFF
	0,5 Hz	100 ms ON, 1900 ms OFF	50 ms ON, 1950 ms OFF

3.3 SIREN

The siren has seven selectable tones. This configuration is done in EBLWin.
The A-weighted sound levels, expressed in dB, are measured at 1 m distance, and with a loop current at 12 V.

TONE 1

Continuous	Horizontal orientation L[dB]						Vertical orientation L[dB]					
984Hz	15°	45°	75°	105°	135°	165°	15°	45°	75°	105°	135°	165°
Minimum sound level	77,3	87,0	92,4	92,4	87,0	77,3	77,3	87,0	92,4	92,4	87,0	77,3

TONE 2

Intermittent	Horizontal orientation L[dB]						Vertical orientation L[dB]					
984Hz 0,5s / silence 0,5s	15°	45°	75°	105°	135°	165°	15°	45°	75°	105°	135°	165°
Minimum sound level	76,2	85,9	91,3	91,3	85,9	76,2	76,2	85,9	91,3	91,3	85,9	76,2

TONE 3

Alternating	Horizontal orientation L[dB]						Vertical orientation L[dB]					
644 Hz 0,25s / 984Hz 0,25s	15°	45°	75°	105°	135°	165°	15°	45°	75°	105°	135°	165°
Minimum sound level	77,8	87,0	91,8	91,8	87,0	77,8	77,8	87,0	91,8	91,8	87,0	77,8

TONE 4

German Fire Sweep (DIN 33 404)	Horizontal orientation L[dB]						Vertical orientation L[dB]					
1200Hz to 500Hz 1s sweep	15°	45°	75°	105°	135°	165°	15°	45°	75°	105°	135°	165°
Minimum sound level	81,4	89,6	93,3	93,3	89,6	81,4	81,4	89,6	93,3	93,3	89,6	81,4

Continued

3 GENERAL DESCRIPTION

Continued

TONE 5

Dutch Fire Intermittent Sweep (NEN 2575)	Horizontal orientation L[dB]						Vertical orientation L[dB]					
500Hz to 1200Hz 3s sweep, 0.5s silence	15˚	45˚	75˚	105˚	135˚	165˚	15˚	45˚	75˚	105˚	135˚	165˚
Minimum sound level	81,1	89,0	94,0	94,0	89,0	81,1	81,1	89,0	94,0	94,0	89,0	81,1

TONE 6

French Fire Alternating (NFS 32-001)	Horizontal orientation L[dB]						Vertical orientation L[dB]					
554Hz 0,1s / 440Hz 0,4s	15˚	45˚	75˚	105˚	135˚	165˚	15˚	45˚	75˚	105˚	135˚	165˚
Minimum sound level	78,3	85,4	89,5	89,5	85,4	78,3	78,3	85,4	89,5	89,5	85,4	78,3

TONE 7

Australian Intermittent (T3)	Horizontal orientation L[dB]						Vertical orientation L[dB]					
984Hz 0,5s / silence 0,5s repeat x3, 1,5s silence repeat whole cycle	15˚	45˚	75˚	105˚	135˚	165˚	15˚	45˚	75˚	105˚	135˚	165˚
Minimum sound level	76,4	87,3	91,6	91,6	87,3	76,4	76,4	87,3	91,6	91,6	87,3	76,4
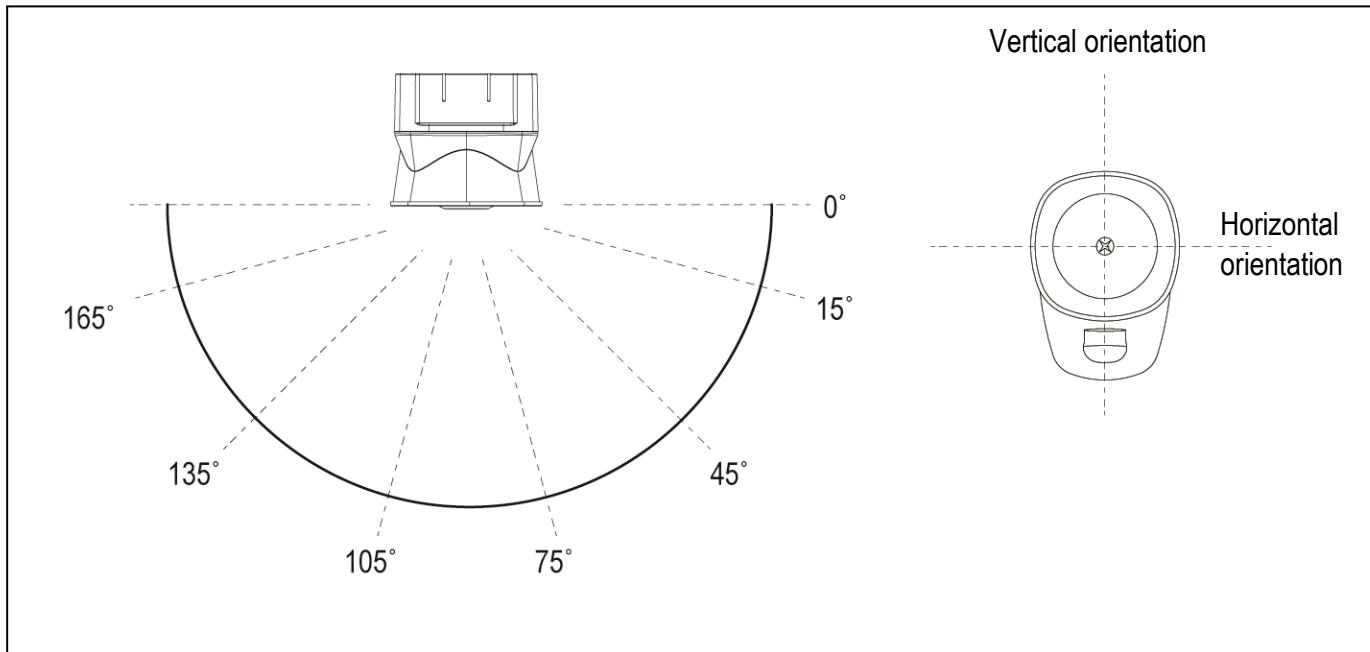
The Addressable VAD with siren and isolator, 4482, has a built-in short circuit isolator that requires no separate COM loop address. Like any other short circuit isolator, it will be given an individual sequence number when programmed in EBLWin.

The isolators have to be connected consecutively regarding sequence number 00-127, in the COM loop's A-direction.

The built-in short circuit isolator will divide the COM loop into segments. A segment is the part of a loop between two isolators or between one isolator and the c.i.e. In case of a short circuit on a COM loop, only the affected segment will be disabled, all other loop units will continue to work normally.

DATA

Parameter	Memn	Value
The maximum line voltage	V_{max}	30 V DC
The nominal line voltage	V_{nom}	24 V DC
The minimum line voltage	V_{min}	12 V DC
The maximum rated continuous current with the switch closed	$I_{C\ max}$	350 mA
The maximum rated switching current on short circuit conditions	$I_{S\ max}$	2 A
The maximum leakage current with the switch open	$I_{L\ max}$	1.5 mA
The maximum series impedance with the switch closed	$Z_{C\ max}$	90 mΩ
The maximum voltage at which the device isolates (i.e. close to open)	$V_{SO\ max}$	11 V DC
The minimum voltage at which the device isolates (i.e. close to open)	$V_{SO\ min}$	5 V DC
The maximum voltage at which the device will change from open to close.	-	N/A[1]
The minimum voltage at which the device will change from open to close.	-	N/A[1]

1) The device can change from open to close by commands from the control and indicating equipment only. This can be done at minimum to maximum line voltage, i.e. 12V DC – 30 V DC.

For more information on short circuit isolators, see the Planning instructions for EBL128 or EBL512 G3 version 2.3.x or later.

4 SET THE COM LOOP ADDRESS

4.1   AUTO ADDRESSING

The 4482 supports automatic addressing via EBLWin.
For more information, see Planning instructions for the system, version 2.4.x or later.

4.2   MANUAL ADDRESSING

Each COM loop unit has to have a unique COM loop address (001-253). Set the address with the Address Setting Tool (4414). Use the connection cable with crocodile clips to connect the tool's SA & SB terminals with the SA & SB terminals of the addressable unit.

5 SET THE MODE

Set the mode with the address setting tool (4414) according to the table below.

5.1   COMPATIBILITY TABLE

|	Advanced mode	NORMAL mode	2330 mode	2312 mode
EBL512 G3	V ≥ 2.3	Not used	Not used	Not used
EBL128	V ≥ 2.3	Not used	Not used	Not used
EBL512	Not used	Not used	Not used	Not used

(V = Software version)

6 MOUNTING

The VAD must be mounted at a maximum height of 2.4 meters, on the wall. It is intended for indoor use only.
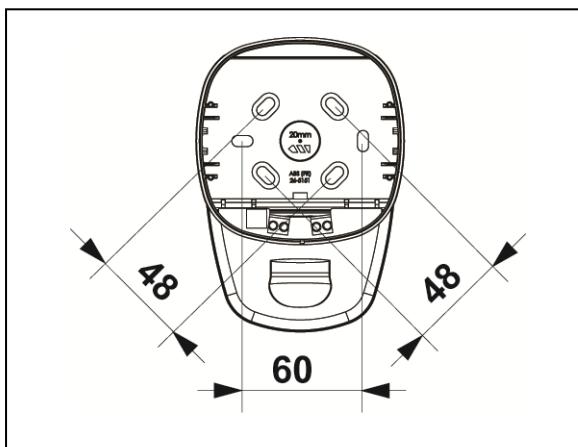

(Measures in mm)

Drilling diameter must be adjusted to the diameter of the cable glands. The cable glands must be compatible with declared cable size.
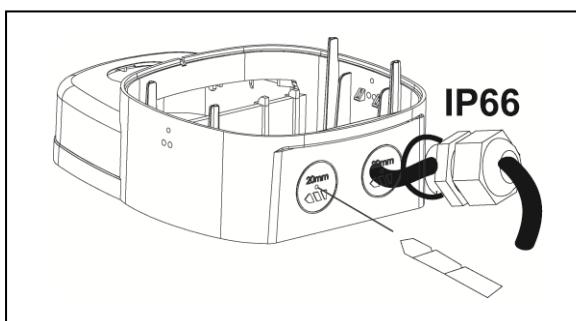

Two Ø16 mm clear waterproof vinyl labels are provided with the product.
They must be attached so that they cover the key holes on both sides of 4482.
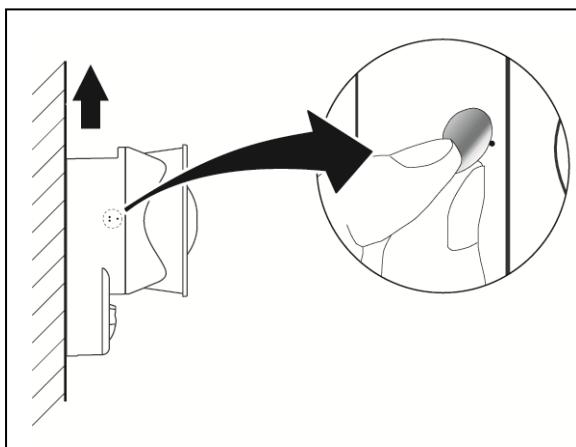
7 INSTALLATION AND WIRING

NOTE! Screen wire termination is not provided.
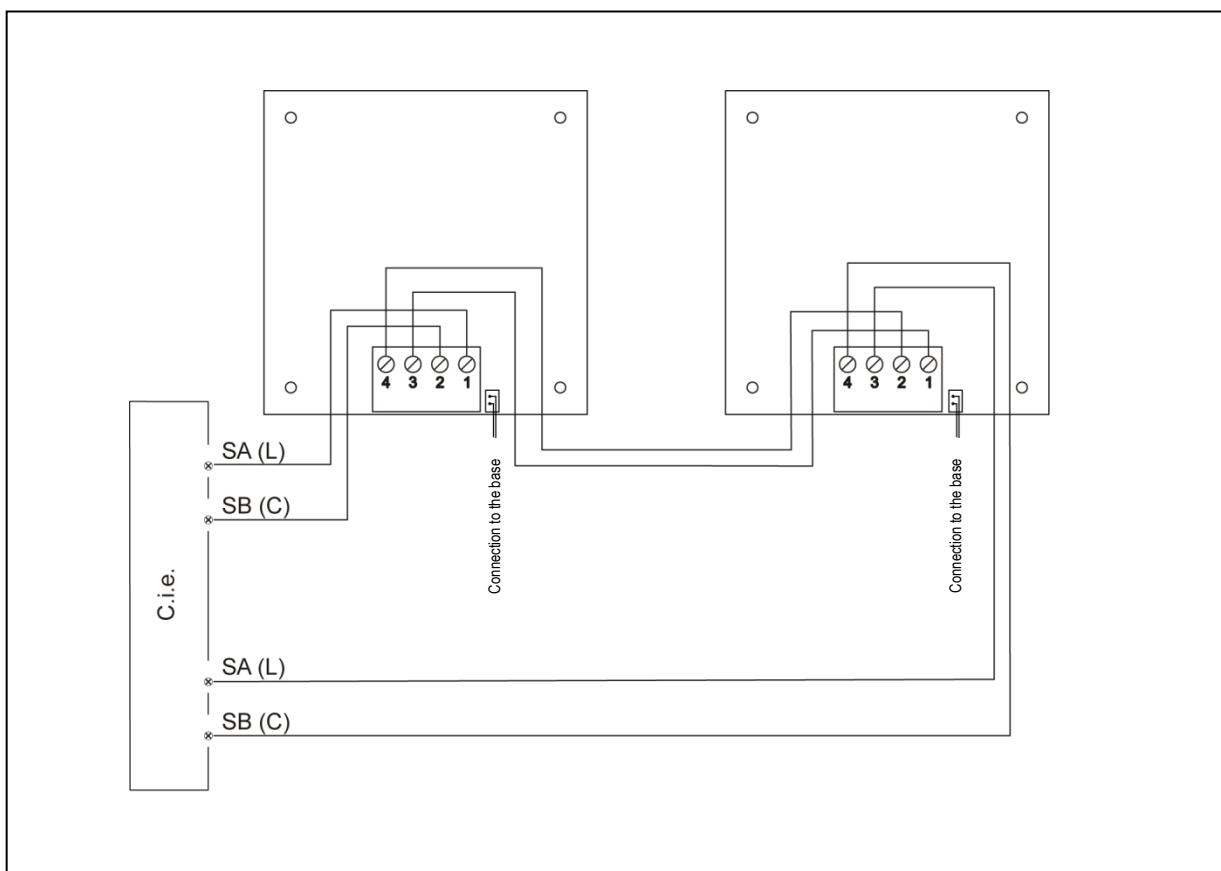
DATA

Wire size (Min)	Ø 0.6 mm (0.3 mm²)
Wire size (Max)	Ø 1.4 mm (1.5 mm²)

8 TECHNICAL DATA

NOTE! All current consumptions are valid by nominal voltage and by 25 °C.

Voltage:	
Allowed	12-30V DC
Normal	24V DC
Current:	
Quiescent	2.5 mA
Active:	
1Hz flash, 5m x 5m	69 mA
0.5 Hz, 5m x5m	38 mA
1Hz flash, 2.5m x 2.5m	39 mA
0.5Hz flash, 2.5m x 2.5m	27 mA
Power consumption	0,03-2,1 W
Address range	1-253
Address setting	With address setting tool
Short circuit isolator	Built-in
Internal battery	No
Material	FR ABS and polycarbonate
Ambient temperature:	
Operating	-10 to +55 °C
Storage	-25 to +70 °C
Ambient humidity	Maximum 95, % RH (Non condensing)
Ingress protection rating	IP 21 C
Weight	278 g
Colour	Red or white
Synchronized	No

9 APPROVALS

Applicable directive / Approval	Applicable standards	Notified body
CPR	EN54-3（Sounder） EN54-17 （Isolator） EN54-23 （VAD）	VdS No. 0786-CPR-21533
VdS	EN54-3 EN54-17 EN54-23 VdS2344 VdS2504	VdS No. G217005
EMC	EN61000-6-3 (Emission) EN50130-4 (Immunity)	Self declaration VdS (Certification)
RoHS	EN50581	Self declaration