Panasonic

4481

ADDRESSABLE CEILING VAD WITH ISOLATOR

Fire alarm solutions technical description

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1. INTRODUCTION

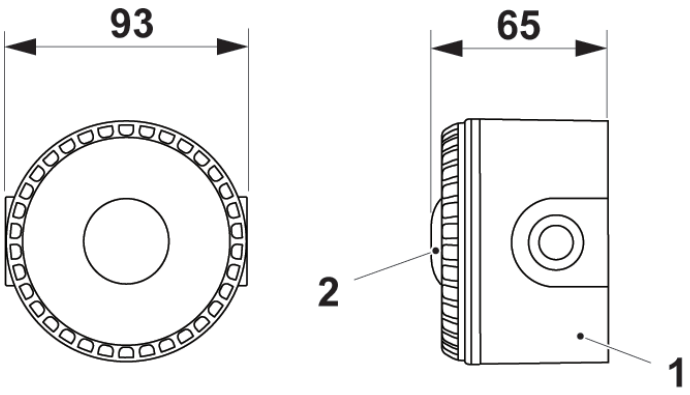
This document describes the Addressable ceiling VAD with isolator, type number 4481.
The document contains information about the product and instructions on how to mount and connect it.

2. ABBREVIATIONS

CIE	Control and indicating equipment	
LED	Light Emitting Diode	
VAD	Visual Alarm Device	

3. GENERAL DESCRIPTION

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



(Measure in mm)

1. Base
2. LED

3.1. BASE

Wall mounted.

3.2. LED

The VAD must be mounted so that the LED is placed at a maximum height of 3 meters.

DATA		
LED colour	Red	
VAD coverage - high power	Ø = 7.3 m	C-3-7.3 (125 m³)
VAD coverage - low power	Ø = 3.0 m	C-3-3 (21.2m³)
Flash rate selections	0.5 Hz or 1 Hz	Soft configured in EBLWin
VAD coverage selection method		Soft configured in EBLWin

LIGHT PATTERN			
Frequency/ Flash rate	VAD coverage		
		Hi Power	Low Power
	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. SHORT CIRCUIT ISOLATOR

The Addressable ceiling VAD with isolator, 4481, 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 CIE. 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.

Parameter	Symbol	Value
The maximum line voltage	V_{max}	30V DC
The nominal line voltage	V_{nom}	24V DC
The minimum line voltage	V_{min}	12V 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)	$V_{SO\ max}$	11V DC
The minimum voltage at which the device isolates (i.e. close to open)	$V_{SO\ min}$	5V 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 EBL512 G3 and EBL128 version 2.3.x or later, or Planning instructions for EBLOne.

4. SET THE COM LOOP ADDRESS

4.1. AUTO ADDRESSING

The 4481 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 or 4414E). Use the connection cable with crocodile clips to connect the tool's SA & SB terminals with the SA & SB terminals of the addressable unit.

The COM loop address and mode settings have to be done before the unit is connected to the COM loop.

5. SET THE MODE

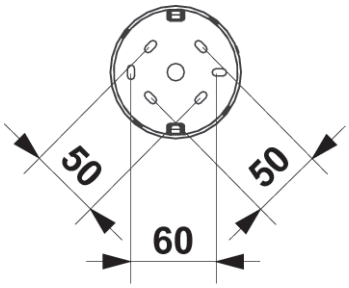
Set the mode with the address setting tool (4414 or 4414E) according to the table below.

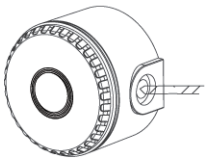
5.1. COMPATIBILITY TABLE

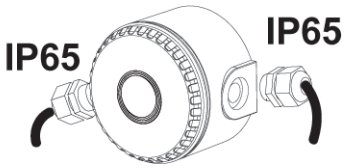
	Advanced mode	NORMAL mode	2330 mode	2312 mode
EBL512 G3	V ≥ 2.3	Not used	Not used	Not used
EBLOne	V ≥ 3.3	Not used	Not used	Not used
EBL128	V ≥ 2.3	Not used	Not used	Not used

6. MOUNTING

The VAD must be mounted at a maximum height of 3 meters, on the ceiling. It is intended for indoor use only. Drilling diameter must be adjusted to the diameter of the cable glands. The cable glands must be compatible with declared cable size.

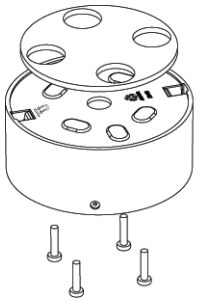


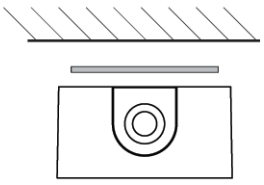


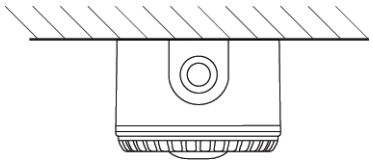


(Measure in mm)

Place a gasket between the unit and the wall. Screws are not supplied.

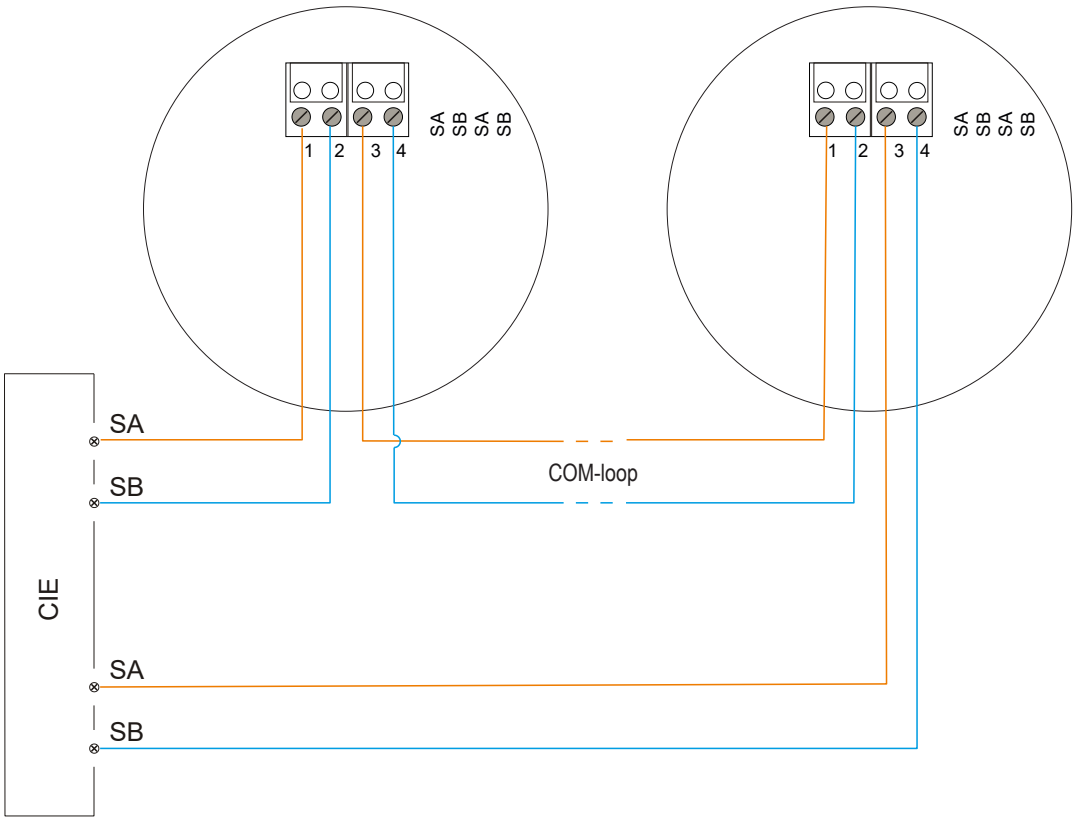






7. INSTALLATION AND WIRING

Screen wire termination is not provided.



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

8. TECHNICAL DATA

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

Voltage: Allowed Normal	 12 – 30V DC 24V DC
Current: Quiescent Active: - 1Hz flash, 7.5m x 7.5m - 0.5 Hz, 7.5m x 7.5m - 1Hz flash, 2.5m x 2.5m - 0.5Hz flash, 2.5m x 2.5m	 2.5 mA 65 mA 34 mA 35 mA 23 mA
Power consumption	0.03 - 2.0 W
Address range	001-253
Address setting	With address setting tool
Short circuit isolator	Built-in
Internal battery	No
Material	FR ABS and polycarbonate
Ambient temperature: Operating Storage	 -10 to +55 °C -25 to +70 °C
Ambient humidity	Maximum 95 % RH (Non condensing)
Ingress protection rating	IP21
Size: Ø x H	 93 x 65 mm
Weight	100 g
Colour	White or red
Synchronized	No

9. APPROVALS

Applicable directive/ Approval	Applicable standards	Notified body
CPR	EN54-17 (Isolator) EN54-23 (VAD)	VdS No. 0786-CPR-21532
VdS	EN54-17 EN54-23 VdS2344 VdS2504	VdS No. G217004
EMC	EN61000-6-3 (Emission) EN50130-4 (Immunity)	Self declaration VdS
RoHS	EN IEC 63000	Self declaration

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