Panasonic

# 4480

## ADDRESSABLE WALL VAD WITH ISOLATOR

**Fire alarm solutions technical description**

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# Table of Contents

# 1. INTRODUCTION

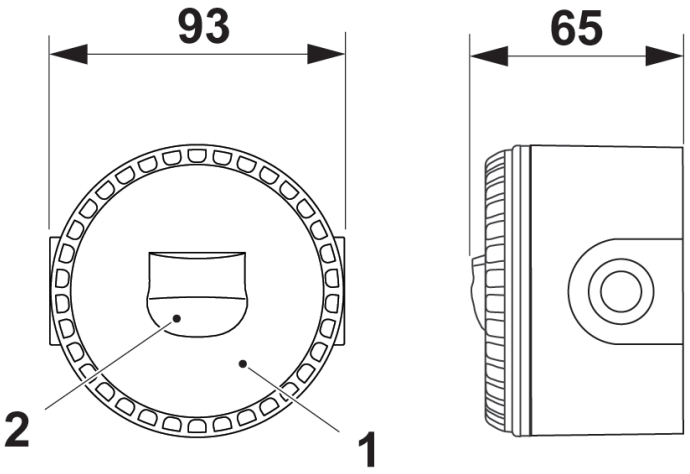
This document describes the Addressable wall VAD with isolator, type number 4480.
The document contains information about the product and instructions on how to mount and connect it.

# 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

| 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 | | | |
|---|---|---|---|
| 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 wall VAD with isolator, 4480, 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 – 30V 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 4480 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

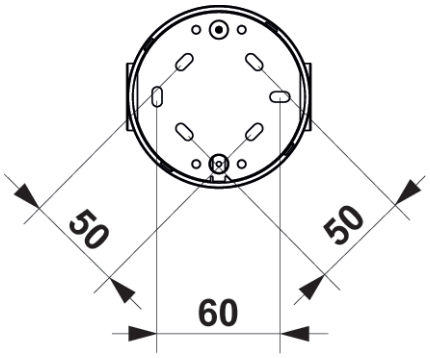
Set the mode with the address setting tool (4414 or 4414E) according to the table below.

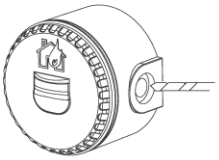
## 5.1. COMPATIBILITY TABLE

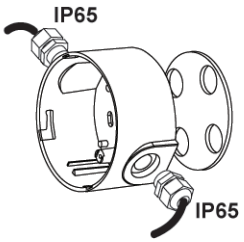
| | Advanced mode | NORMAL mode | 2330 mode | 2312 mode |
|---|---|---|---|---|
| EBL512 G3 | V ≥ 2.3 | Not used | Not used | Not used |
| EBLOne | V ≥ 3.3 | Not used | Not used | Not used |
| EBL128 | V ≥ 2.3 | Not used | Not used | Not used |

# 6. MOUNTING

The VAD must be mounted at a maximum height of 2.4 meters, on the wall. Drilling diameter must be adjusted to the diameter of the cable glands. The cable glands must be compatible with declared cable size.

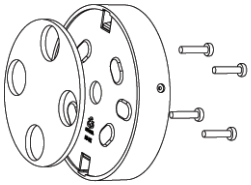


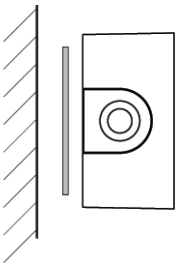



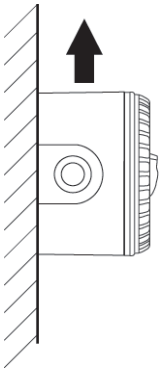



(Measure in mm)

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

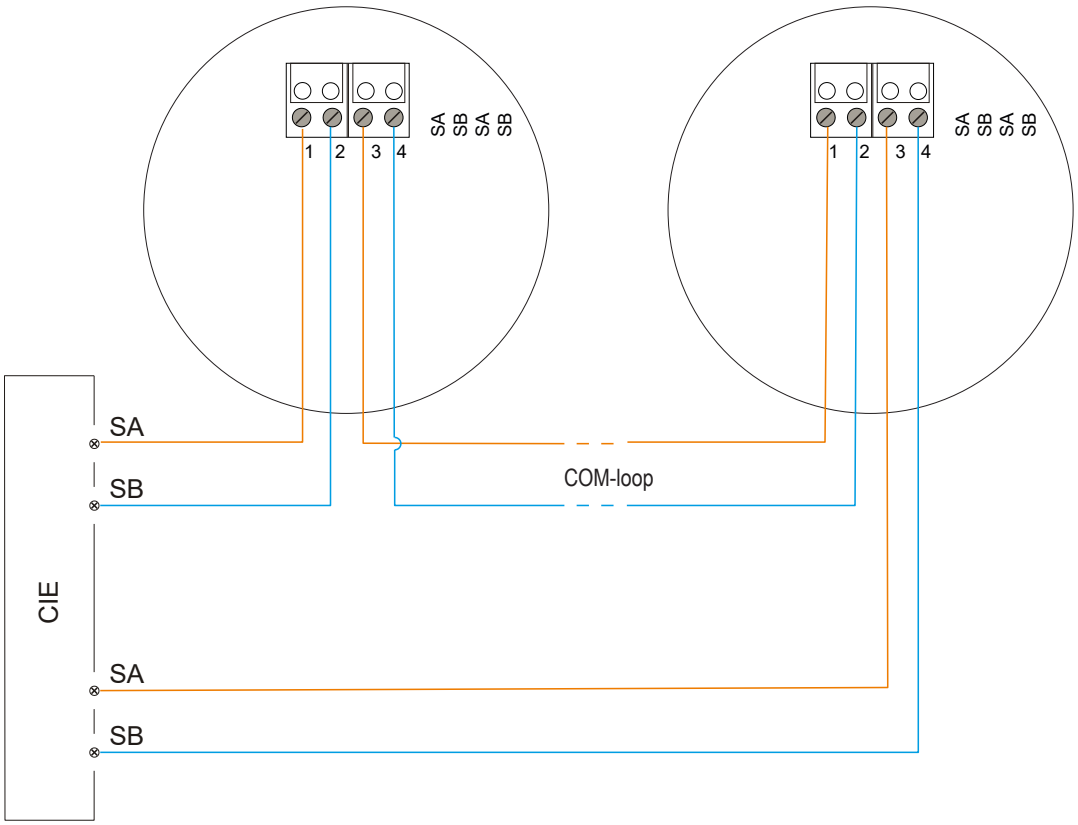






# 7. INSTALLATION AND WIRING

***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:<br>Allowed<br>Normal | <br>12 – 30V DC<br>24V DC |
| Current:<br>Quiescent<br>Active:<br>- 1Hz flash, 7.5m x 7.5m<br>- 0.5 Hz, 7.5m x 7.5m<br>- 1Hz flash, 2.5m x 2.5m<br>- 0.5Hz flash, 2.5m x 2.5m | <br>2.5 mA<br><br>65 mA<br>34 mA<br>35 mA<br>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:<br>Operating<br>Storage | <br>-10 to +55 °C<br>-25 to +70 °C |
| Ambient humidity | Maximum 95 % RH (Non condensing) |
| Ingress protection rating | IP21 C |
| Size:<br>Ø x H | <br>93 x 65 mm |
| Weight | 100 g |
| Colour | Red or white |
| Synchronized | No |

# 9. APPROVALS

| Applicable directive/ Approval | Applicable standards | Notified body |
|---|---|---|
| CPR | EN54-17 (Isolator)<br>EN54-23 (VAD) | VdS<br>No. 0786-CPR-21531 |
| VdS | EN54-17<br>EN54-23<br>VdS2344<br>VdS2504 | VdS<br>No. G217003 |
| EMC | EN61000-6-3 (Emission)<br>EN50130-4 (Immunity) | Self declaration<br>VdS |
| RoHS | EN IEC 63000 | Self declaration |

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