Panasonic



4381

ADDRESSABLE VAD WITH ISOLATOR

Fire alarm solutions
technical description

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1. INTRODUCTION

This document describes the Addressable VAD with isolator, type number 4381.
The document contains information about the product and instructions on how to mount and connect it.

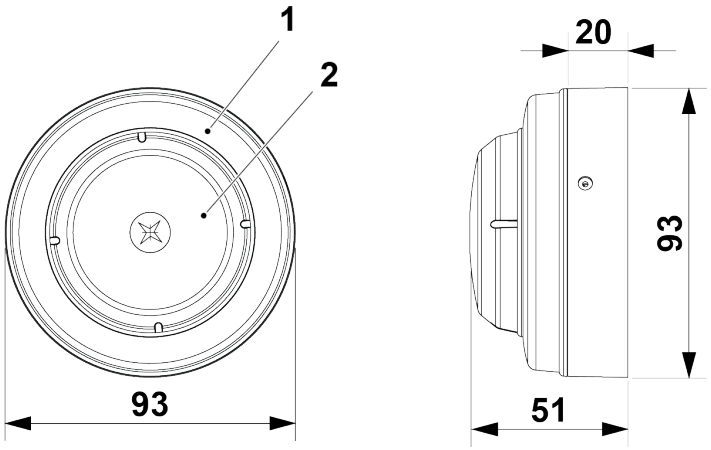
2. ABBREVIATIONS

LED	Light Emitting Diode	
VAD	Visual Alarm Device	

3. GENERAL DESCRIPTION

Addressable VAD with and isolator is a visual alarm device to be used as a complement to audible alarm devices. The light is visible 360°.

It can be used in indoor environment, type A. For example toilets and other smaller public areas.



(Measure in mm)

1. Base
2. LED

3.1. BASE

Wall or ceiling mounted.

3.2. LED

DATA	
LED colour	Red
VAD coverage	See 3.3. VAD COVERAGE on page 6
Flash rate	0.5 Hz

3.3. VAD COVERAGE

Addressable VAD is an open class device. The light beam is symmetrical according to the illustration A. It shall be mounted on the ceiling or on the wall so that as large volume as possible of the room is covered.

The illustration B and C are example of how a toilet room may be covered with a wall or ceiling mounted VAD.

Illustration A

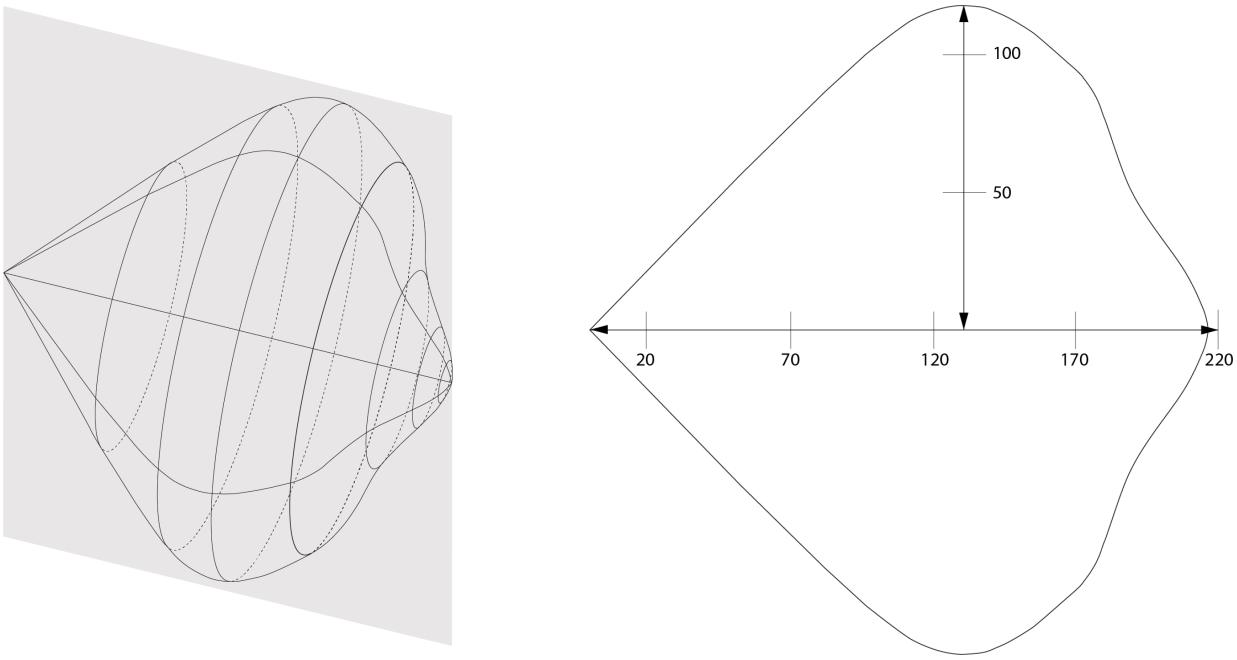


Illustration B

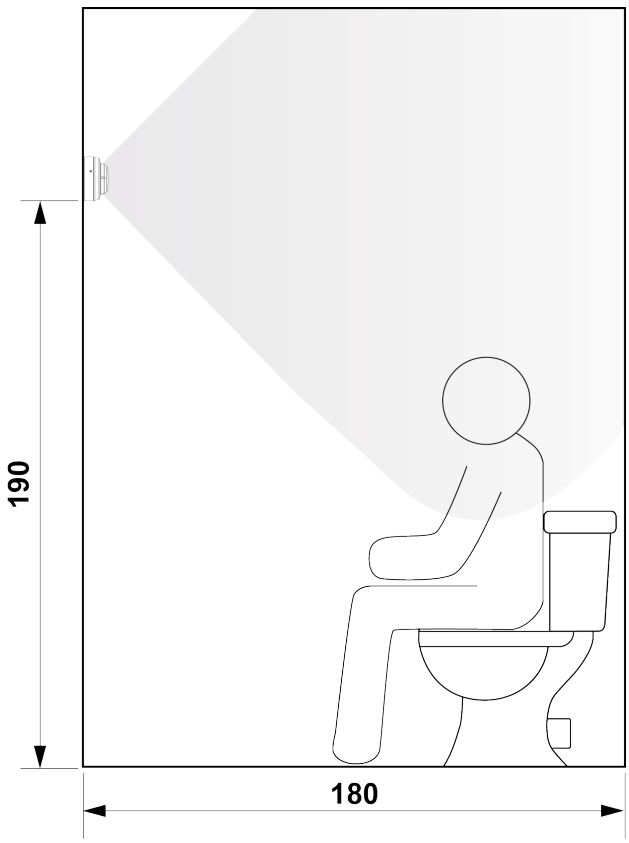
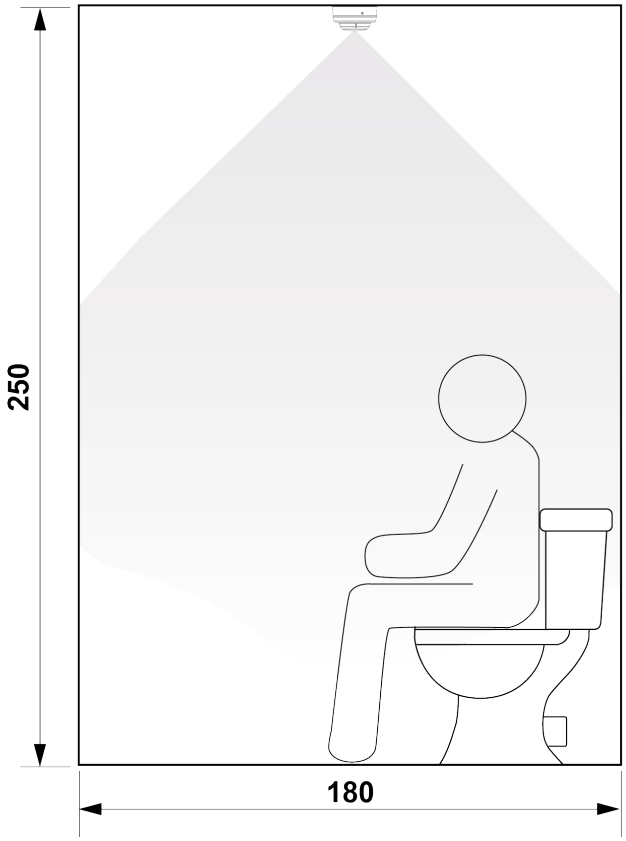


Illustration C



3.4. SHORT CIRCUIT ISOLATOR

The Addressable VAD with isolator, 4381, 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	$I_{S\,max}$	600 mA
The maximum leakage current with the switch open	$I_{L\,max}$	1.5 mA
The maximum series impedance with the switch closed	$Z_{C\,max}$	250 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 EBL128 or EBL512 G3 version 2.3.x or later.

4. SET THE COM LOOP ADDRESS

4.1. AUTO ADDRESSING

The 4381 supports automatic addressing via EBLWin.
For more information, see Planning instructions for the system, version 3.1.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.

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

5. SET THE MODE

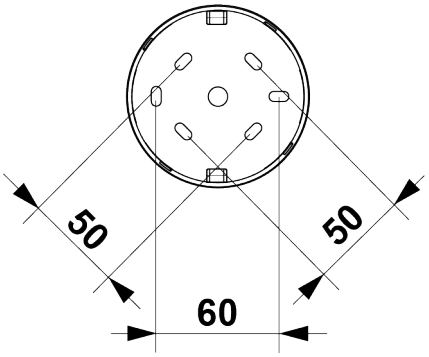
The mode is set with the Address Setting Tool (4414) according to the table below.

5.1. COMPATIBILITY TABLE

	Advanced mode	NORMAL mode	2330 mode	2312 mode
EBL512 G3	V ≥ 3.1	V ≥ 1.0	Not used	Not used
Configured as:	-	4380	-	-

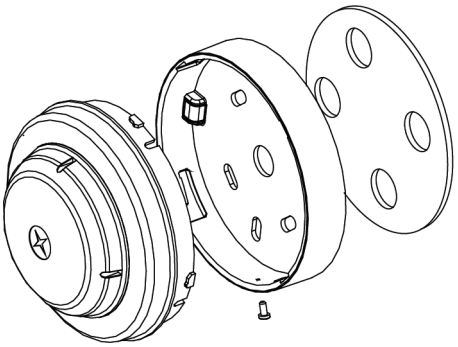
6. MOUNTING

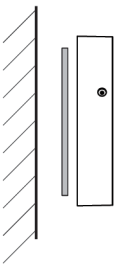
The VAD must be mounted on the ceiling or on the wall, see 3.3. VAD COVERAGE on page 6. Drilling diameter must be adjusted to the diameter of the cable glands. The cable glands must be compatible with declared cable size.

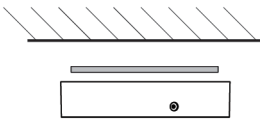


(Measures in mm)

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



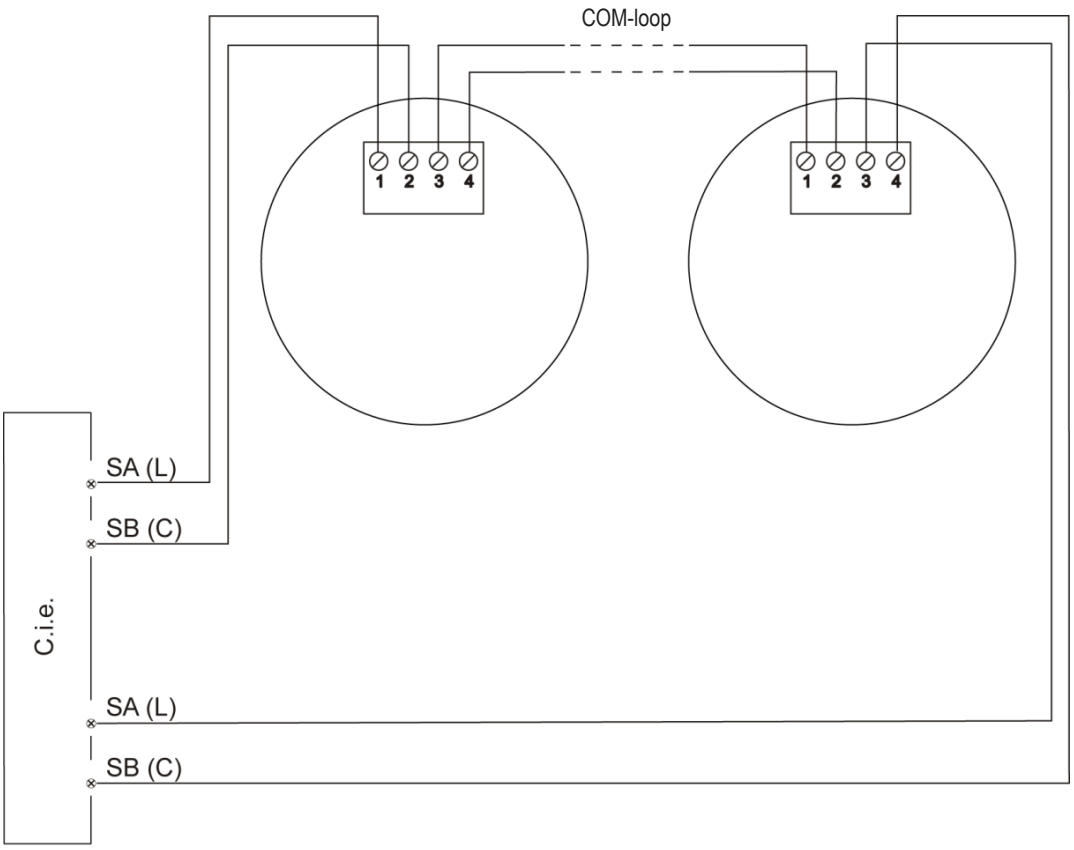




7. INSTALLATION AND WIRING

Screen wire termination is not provided.

Make sure that the cable does not put stress on the circuit board.



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	 1.6 mA 8 mA
Power consumption:	0.03- 0.2 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)
Flash rate	0.5 Hz
Ingress protection rating	IP 21 C
Size: Ø x H	 93 x 53 mm
Weight:	100 g
Colour	Red
LED	Red LED (white glass)
Synchronized	No

9. APPROVALS

Applicable directive/ Approval	Applicable standards	Notified body
CPR	EN54-17 (Isolator) EN54-23 (VAD)	CNBOP No. 1438-CPR-0886
EMC	EN61000-6-3 (Emission) EN50130-4 (Immunity)	Self declaration CNBOP (Certification)
RoHS	EN IEC 63000	Self declaration

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