Panasonic

4479

ADDRESSABLE SOUNDER BASE

Fire alarm solutions
technical description

www.panasonic-fire-security.com

Table of Contents

1. INTRODUCTION

This document describes the Addressable sounder base, type number 4479.
The document contains information about the product and instructions on how to mount and connect it.

2. ABBREVIATIONS

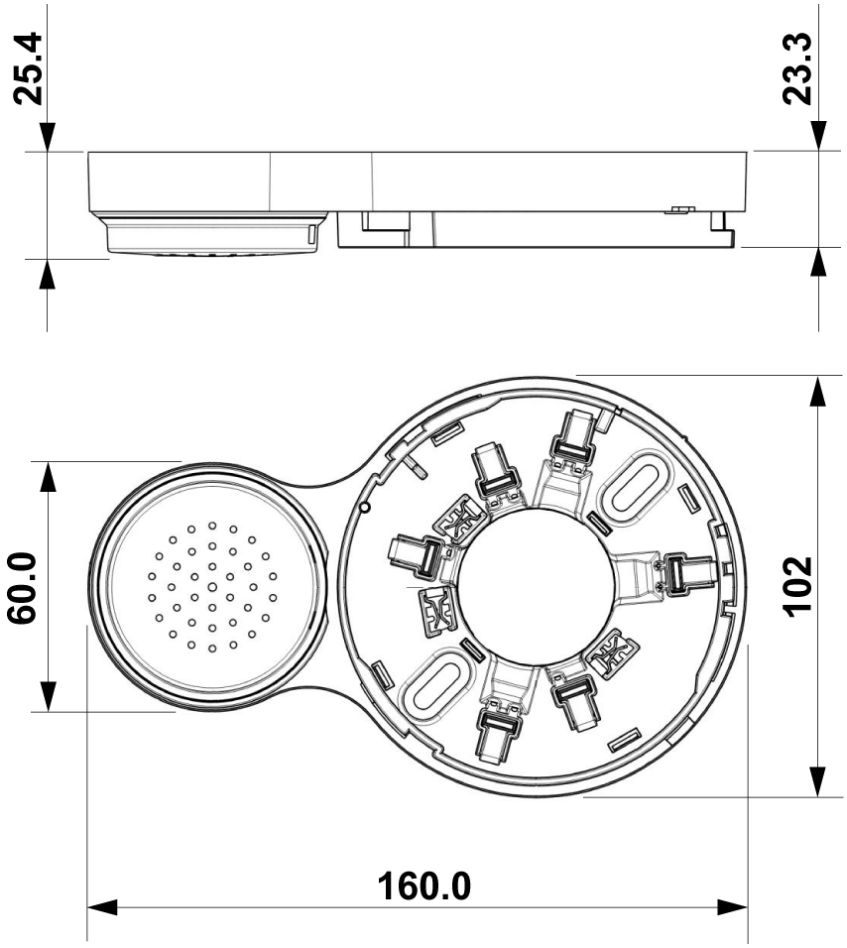
dB	Decibel
SPL	Sound Pressure Level [dBA @1m]

3. GENERAL DESCRIPTION

The addressable sounder base is intended for indoor use and in dry premises.
The sounder base is mounted in the ceiling and the analog multi detector with isolator 4400I must be plugged in the base. The base is connected to the COM loop.

The addressable sounder base cannot be used without a detector.

The sounder has three priority levels that are programmable with different tones.



(Measure in mm)

3.1. SOUNDER

The sounder has seven different tones. These tones can be used in the three priority levels; high, medium, and low.

3.2. BASE

Ceiling mounted. Cannot be used without a detector. The short circuit isolator is in the detector, so without detector 4400I you will have an open circuit.

4. PROGRAMMABLE SOUNDER

This configuration is done in EBLWin.

4.1. PRIORITY LEVELS

Three priority levels (High, Medium & Low) are available. For each priority level an output control expression and a tone have to be programmed. At least one priority level has to be programmed.

The sounder can, for example, have one tones for fire alarm activated somewhere in the whole building (low priority), another sound type for fire alarm activated on the same story/floor (medium priority) and yet another sound type when the detector plugged in the base activates fire alarm (high priority).

A control expression with one or more trigger conditions shall be created. If the sounder is activated/sounds for a lower priority level, the tone will change if the control expression for a higher priority level becomes true.

Two priority levels cannot have the same tone.

4.2. NORMAL SPL

Normal SPL has an approved Sound Pressure Level according to EN54-3.

4.3. LOW POWER SPL

Low Power SPL can be chosen in the EBLWin configuration.
Low Power SPL has lower current consumption than Normal SPL.
For more information, see 9. TECHNICAL DATA on page 16.

Low Power SPL is not approved according to EN54-3.

4.4. TONES

The sounder has seven selectable tones. This configuration is done in EBLWin.
The values in the tables below are **minimum** sound pressure level.

TONE 1

Continuous	Horizontal orientation L[dB]						Vertical orientation L[dB]					
984Hz	15˚	45˚	75˚	105˚	135˚	165˚	15˚	45˚	75˚	105˚	135˚	165˚
SPL	80.0	84.9	87.2	85.3	77.2	81.6	83.5	78.5	86.7	86.9	78.6	83.0
With ingress protection type 4489	78.0	84.4	84.4	84.0	77.0	80.8	81.6	79.9	85.4	85.7	78.1	82.4

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˚
SPL	78.9	85.0	87.1	85.1	77.1	81.5	83.6	78.8	86.6	86.8	78.6	82,9
With ingress protection type 4489	78.0	84.4	85.3	83.9	76.9	80.7	81.5	78.8	85.3	85.6	78.8	82.3

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˚
SPL	79.7	85.2	86.9	85.0	76.9	81.4	83.4	78.7	86.5	86.6	78.4	82.9
With ingress protection type 4489	77.7	79.6	85.2	83.8	76.7	80.5	80.5	79.6	85.2	85.5	78.6	82.3

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˚
SPL	81.3	85.1	85.8	84.8	78.7	82.1	84.4	80.3	85.9	85.8	79.9	84.7
With ingress protection type 4489	79.8	85.2	85.5	84.5	79.4	81.5	82.8	80.2	85.4	85.4	80.3	84.2

TONE 5

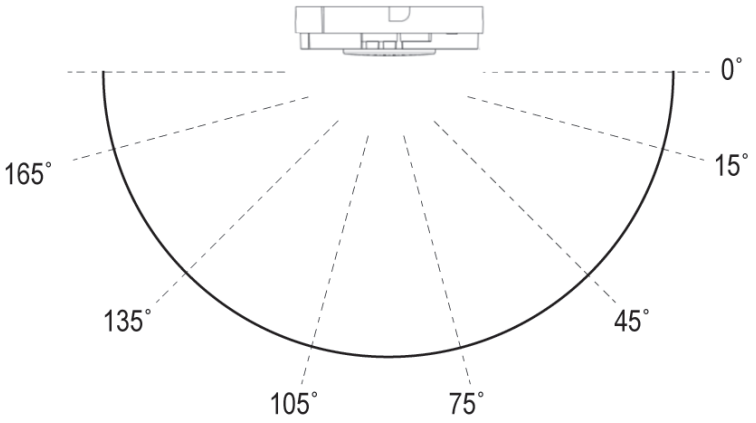
Dutch Fire Intermittent Sweep (NEN 2575)	Horizontal orientation L[dB]						Vertical orientation L[dB]					
500Hz to 1200Hz 3s sweep, 0.5s silence	15˚	45˚	75˚	105˚	135˚	165˚	15˚	45˚	75˚	105˚	135˚	165˚
SPL	80.8	85.1	85.7	84.7	77.7	81.2	84.5	79.9	85.9	85.8	79.8	83.2
With ingress protection type 4489	79.8	83.5	84.9	84.0	78.7	80.7	83.3	79.9	85.2	85.0	79.5	82.9

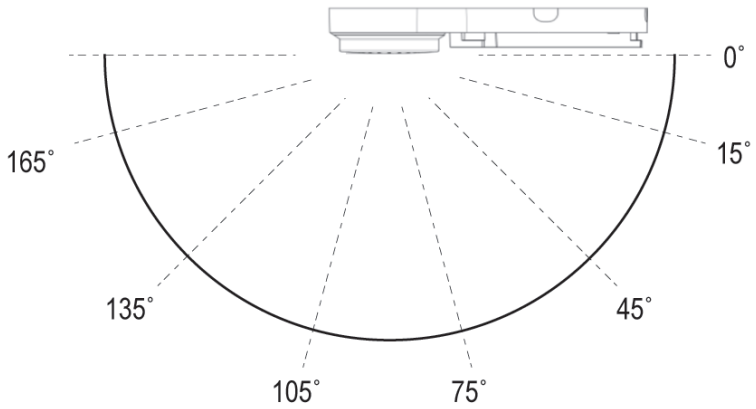
TONE 6

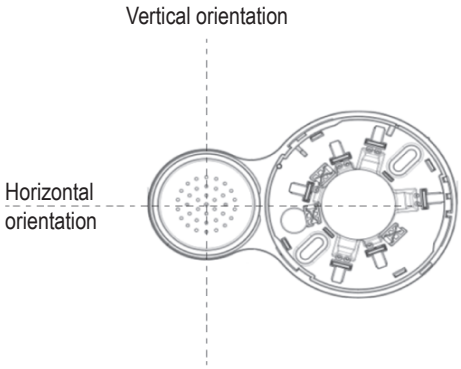
French Fire Alternating (NFS 32-001)	Horizontal orientation L[dB]						Vertical orientation L[dB]					
554Hz 0,1s / 440Hz 0,4s	15˚	45˚	75˚	105˚	135˚	165˚	15˚	45˚	75˚	105˚	135˚	165˚
SPL	77.5	82.1	83.6	82.8	77.0	79.4	81.2	76.1	83.3	83.5	77.6	81.9
With ingress protection type 4489	77.0	83.1	83.2	82.3	76.6	79.0	80.9	77.0	82.9	83.0	77.8	81.9

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˚
SPL	79.8	84.9	87.0	85.0	77.1	81.5	83.6	78.6	86.5	86.8	78.6	82.5
With ingress protection type 4489	78.0	84.4	85.3	83.8	76.9	80.7	81.5	79.7	85.2	85.6	78.8	82.3


0˚
15˚
45˚
75˚
105˚
135˚
165˚


0˚
15˚
45˚
75˚
105˚
135˚
165˚


Vertical orientation
Horizontal
orientation

5. SET THE COM LOOP ADDRESS

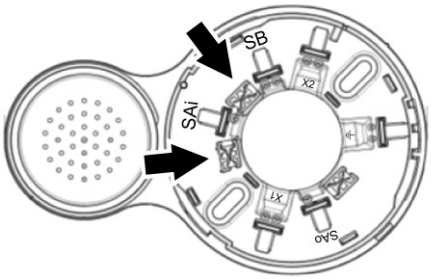
5.1. AUTO ADDRESSING

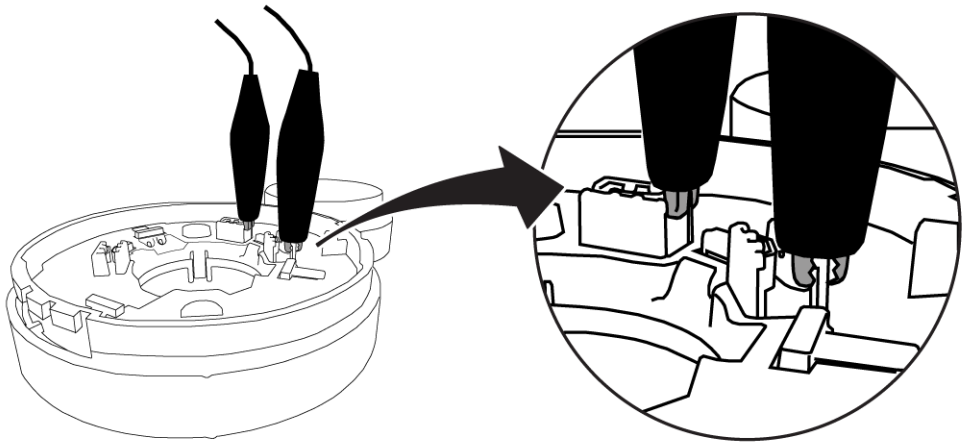
The sounder base 4479 with detector 4400I supports automatic addressing via the EBLWin.
The sounder base 4479 has no short circuit isolator, which is necessary for automatic addressing. But in conjunction with 4400I, auto addressing is possible.

To be able to auto-addressing a unit, the unit must have its default address.
The 4479 has address 255 as default. (The 4400I has address 0 as default.)

5.2. MANUAL ADDRESSING

If auto addressing is not used, there is a possibility to manually set the address.
Each COM loop unit has to have a unique COM loop address (001-253).
Set the address with the Address Setting Tool (4414 / 4414E). Use the connection cable with crocodile clips to connect the SA & SB terminals of the tool with the SA & SB terminals of the 4479.





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

The detector plugged in the base has to have a different COM loop address than the sounder base.

6. SET THE MODE

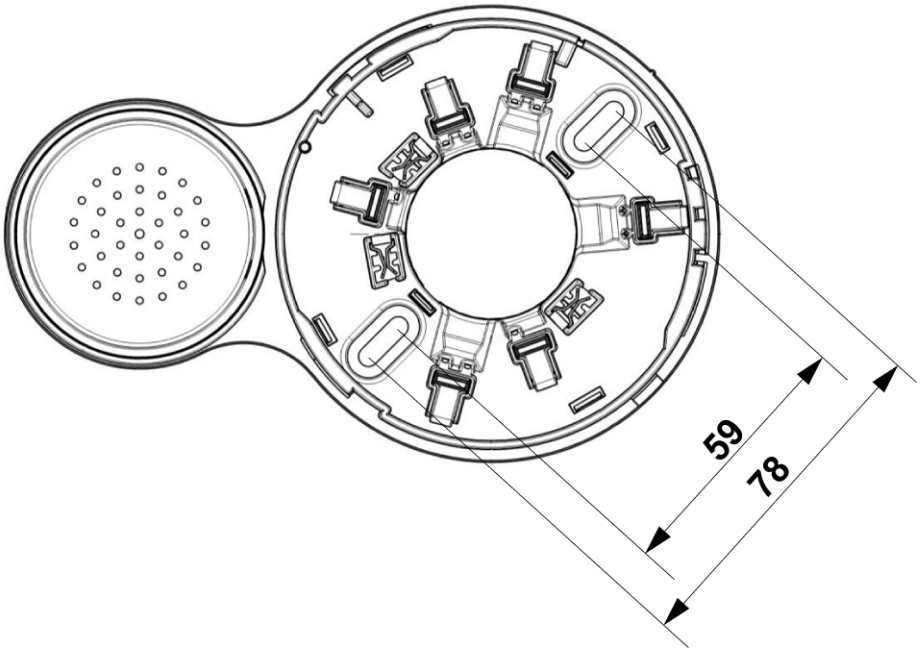
The 4479 is set to advanced mode by default.

6.1. COMPATIBILITY TABLE

	Advanced mode	NORMAL mode	2330 mode	2312 mode
EBLOne	V ≥ 3.3	Not used	Not used	Not used
EBL512 G3	V ≥ 2.4	Not used	Not used	Not used
EBL128	V ≥ 2.4	Not used	Not used	Not used
EBL512	Not used	Not used	Not used	Not used

7. MOUNTING

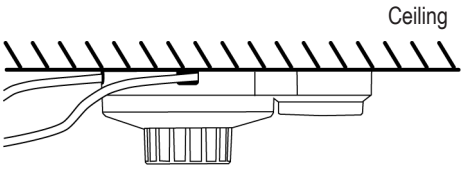
The addressable sounder base must be mounted in the ceiling. Screws are not supplied.



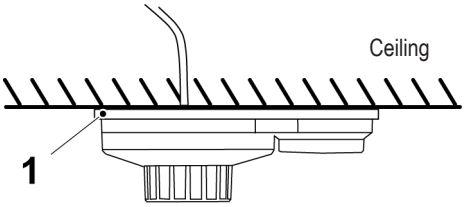
(Measure in mm)

The addressable sounder base cannot be used without a detector. The short circuit isolator is in the detector, so without detector 4400I you will have an open circuit.

If the addressable sounder base is mounted on an impenetrable ceiling, for example concrete ceiling, and with the cabling entering from the sides of the product, there is no need for any ingress protection.



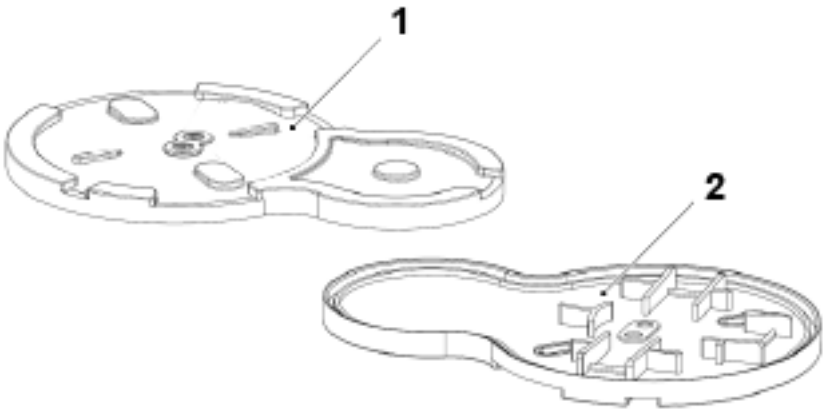
If the sounder base is mounted with the cabling entering from above (through the inner ceiling), there is a need for an ingress protection (type 4489).
See 7.1. MOUNTING WITH INGRESS PROTECTION FOR SOUNDER BASE on page 13.



1. Ingress protection for sounder base

7.1. MOUNTING WITH INGRESS PROTECTION FOR SOUNDER BASE

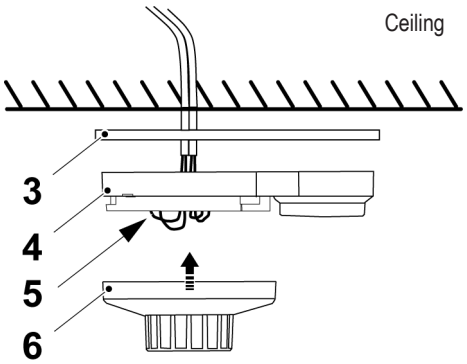
If the sounder base is mounted with the cabling entering from above (through the inner ceiling), there is a need for an ingress protection (type 4489) to maintain IP 21 of the sounder base. The ingress protection is white.



1. Side towards ceiling
2. Side towards sounder base

a) Drill a hole in the inner ceiling.
b) Gently cut off the top of the grades (marked red below) on the waterproof packing to open up the cable entry. Use a sharp knife.

c) Draw the cables through the ceiling, through the ingress protection and through the sounder base. Connect the wires in the sounder base according to chapter 8. INSTALLATION AND WIRING on page 15.
d) Fit the sounder base into the ingress protection.
e) Mount the sounder base with screws onto the ceiling.
f) Fit the detector onto the sounder base.

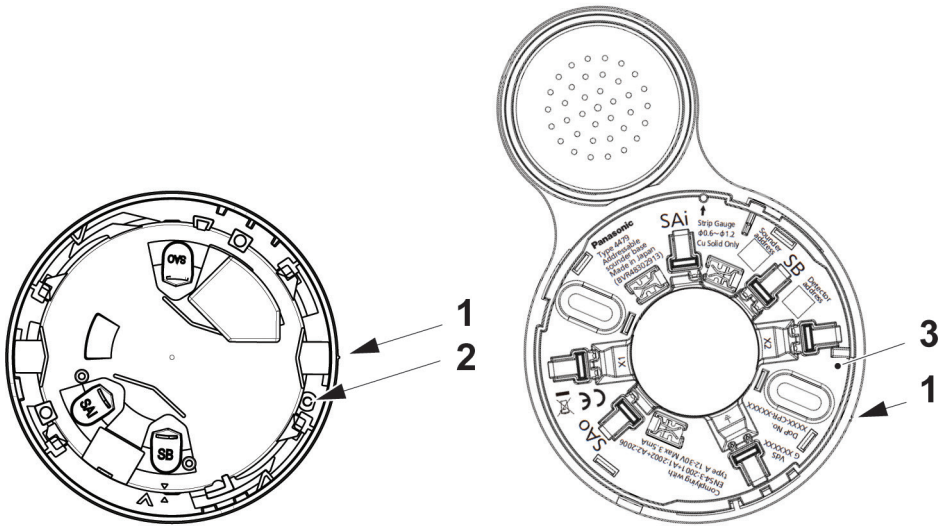


3. Ingress protection, type 4489
4. Sounder base
5. Wires
6. Detector

7.2. LOCK SCREW

The sounder base 4479 is prepared for mechanical locking with detector 4400I.

a) Drill the lock screw hole (2.5-2.7 mm) through the detector.
b) Place the detector in the base with the detector's "Mark" in the same position as the "Mark" on the base and turn the detector clockwise.
c) Attach the lock screw (1.5 mm Hex key to be used).

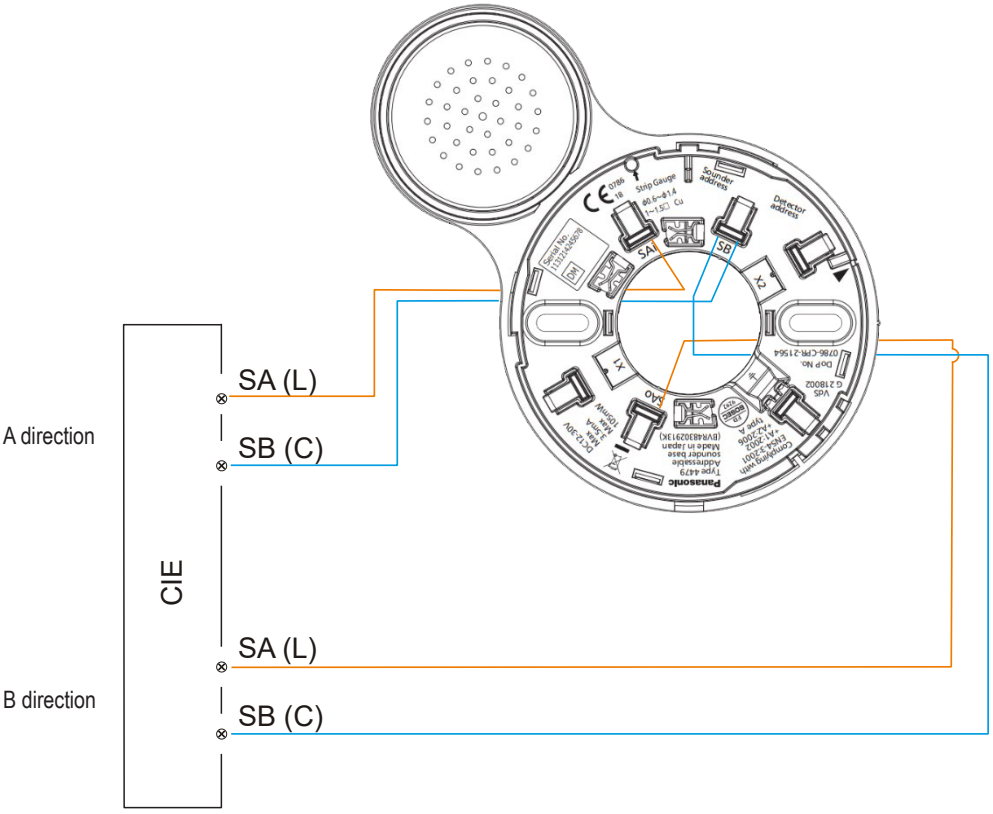


Detector Sounder base

1. Mark
2. Lock screw hole (prepared for drilling through detector body)
3. Corresponding position of the lock screw in the sounder base when the screw is attached.

8. INSTALLATION AND WIRING

Screen wire termination is not provided.



The base is prepared for mechanical locking of the detector when a detector with a locking screw is plugged into the base. Analog detector with isolator 4400I must be plugged in the addressable sounder base 4479.

Terminal name	Description	Wire size (Min)	Wire size (Max)
SAi	COM-loop SA input	Solid wire: Ø 0.6 mm (0.28 mm²) Stranded wire: 1.0 mm²	Solid wire: Ø 1.385 mm (1.50 mm²) Stranded wire: 1.5 mm²
SAo	COM-loop SA output		
SB	COM-loop SB input / output		
X1	If necessary, connect excess wires of fire alarm cable. (for +30DC or its ground only)		
X2	If necessary, connect excess wires of fire alarm cable. (for +30DC or its ground only)		
Screen	If necessary, connect screened wires of fire alarm cable	Solid wire: Ø 0.6 mm (0.28 mm²)	Solid wire: Ø 1.385 mm (1.50 mm²)

If solid wire Ø 0.6 mm or thinner is used, the release button may have to be pressed when the wire is put into the connector.
If solid wire Ø > 1.2 mm (Max 1.385 mm) is used, the release button may have to be pressed by a tool (for example a screwdriver) when the wire is removed from fast connector.

If stranded wire is used, the release button may have to be pressed when the wire is put and remove into the connector.

9. 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, Normal Active, Low power		 ≤ 0.75 mA Max 3.5 mA Max 1.5 mA
Power consumption		9 - 105 mW
SPL, Normal, for tones1,2,3,4,5 and 7 SPL, Normal, for tone 6 Sound Pressure Level, Low power		90 ± 3 dB (A) 87 ± 3 dB (A) ≈ 84 dB (A) Not approved
Address range		001-253
Address setting		Auto addressing / With address setting tool
Short circuit isolator		No
Internal battery		No
Material		ABS
Ambient temperature: Operating Storage		 -10 to +55 °C -20 to +70 °C
Ambient humidity		Maximum 95 % RH (Non condensing)
Ingress protection rating		IP21 C
Size: H x W x D		 160 x 102 x 25.4 mm
Weight		 102.5 g
Colour	4479 4479-B	White (10Y9/0.5, Munsell colour code) Matte Black (N1.5 Munsell colour code)

10. APPROVALS

Applicable directive/ Approval	Applicable standards	Notified body
CPR	EN 54-3: 2001+A1:2002+A2:2006	VdS No. 0786-CPR-21564
VdS	EN54-3 VdS 2344 VdS 2543	VdS No. G218002
EMC	EN61000-6-3 (Emission) EN50130-4 (Immunity)	Self declaration VdS
RoHS	EN IEC 63000	Self declaration

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