

# Opal™ AV Devices

## Data Sheet



Notifier's Opal AV (Audio Visual) range is designed to alert building occupants of an emergency. The Opal AV range of analogue addressable, loop powered, audible and visual alarm devices, provides a comprehensive selection of products designed to meet the majority of fire alarm installation requirements. The range utilizes Notifier's advanced digital Opal protocol to minimize the current required, enable longer loops and provide distinct signals for different alarm types.

The Opal AV range is easily mounted on the standard Notifier B501AP base for improved installation flexibility making all devices - detectors, sounders and beacons alike - fully interchangeable without the need for any wiring disturbance.

### Benefits

- **Faster installation** - The large cable access, rear or surface cable entry options and innovative loop continuity spring all make for faster more cost effective installation.
- **Reduced install errors and easy fault finding** - devices are mounted using a positive push and turn engagement system and are supplied with an address tag for clear identification. Isolation is built-in to each device and addressing is made simple by familiar rotary wheel address controls. In addition each device incorporates an anti-tamper feature giving added security.
- **Excellent system performance** - Light output\*\* and a selection of 32 sounder tones can be synchronised via the Notifier control panel to provide fast clear warning of a fire related incident.

- **Flexible installation** - The low current draw of the devices enables more devices on each loop. This combined with the wide range of devices and mounting options including deep bases and IP65 ratings, white or red colour options and sounder volume controllable from the panel or the sounder itself all make for greater flexibility for the system designer.
- **Reduced lifetime costs** - each device in the Opal AV range is constructed from high quality UV stable materials, designed for impact resistance and years of trouble free operation. If changes to a system are required the universal system base means a sounder/beacon can be added without re-wiring.
- **Reduced inventory count** - Notifier's Opal AV range now utilizes the B501AP system base, - common to detectors. The Opal AV range is designed to maximise the features of Notifier's advanced digital Opal protocol but remains backward compatible with previous Notifier communication protocols so can be used for retrofit and replacement for older systems.

Opal AV devices provide both standard wall mounted units and integrated base units allowing the direct fitting of Notifier detectors. Wall mounted units are available as a sounder, a VAD (Visual Alarm Device) only and sounder & VAD combination. Integrated base sounder units are also available as either a sounder, VID (Visual Indicating Device) or combined sounder/VAD.

This document is not intended to be used for installation purposes. Every care has been taken in the preparation of this document but no liability can be accepted for the use of the information therein. Design features may be changed or amended without prior notice.

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 Design, Manufacture and  
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 ISO9001:1994



## Addressable Loop Powered Base Sounder, VID (Visual Indicating Device) and Sounder/VAD (Visual Alarm Device)

Notifier's range of base sounders, VIDs and sounders with VADs are high quality loop powered devices designed to alert building occupants of an emergency. Featuring fast and simple installation and control they form the perfect base for Notifier Opal detectors. Powered by the fire panel via the loop wiring, control of the devices is enabled using on-board switches or via the Opal digital protocol using the control panel. The range is installed simply by a twist fit onto the B501AP base which is used for detectors.

The Opal base sounder with VAD integrates a high quality 32 tone sounder and high quality VAD into one unit. When triggered by the fire panel its powerful sounder gives an audible warning whilst the VID provides additional indication.

The Opal base sounder is a high quality 32 tone sounder. A choice of output levels and tones make the device suitable for a wide variety of applications.



## Specifications

Opal Addressable Base Sounder - NFXI-BS-W

Opal Addressable Base Sounder/VAD - NFXI-DSF-WC

Opal Addressable Base VID - NFXI-BF-WC

### Mechanical Specification

|                           | NFXI-BS-W                    | NFXI-DSF-WC | NFXI-BF-WC |
|---------------------------|------------------------------|-------------|------------|
| Height:                   | 55mm                         | 55mm        | 55mm       |
| Diameter:                 | 121mm                        | 121mm       | 121mm      |
| Weight:                   | 200g                         | 199g        | 200g       |
| Body colour:              |                              | white       |            |
| Lens colour:              | N/A                          | Clear       | Clear      |
| Light colour:             | N/A                          | Red         | Red        |
| Beacon flash rate:        | N/A                          | 1Hz         | 1Hz        |
| Number of tones:          | 32                           | 32          | N/A        |
| Volume settings:          | High, Medium & Low           |             | N/A        |
| Wire gauge for terminals: | 1.5 - 2.5mm <sup>2</sup> max |             |            |

### Electrical Specification

|                          | NFXI-BS-W                            | NFXI-DSF-WC        | NFXI-BF-WC |
|--------------------------|--------------------------------------|--------------------|------------|
| Supply voltage:          | 15 to 29VDC                          |                    |            |
| Standby current:         | 450µA (CLIP) 320µA (Opal)            |                    |            |
| Max current consumption: | <10.5mA <sup>1</sup>                 | <10mA <sup>2</sup> | < 3.5mA    |
| Max sound output:        | 95dB(A) +/-3dB @1 metre <sup>2</sup> |                    | N/A        |

<sup>1</sup> High Volume Tone 21 @24V

<sup>2</sup> High Volume, Tone 13 @24V

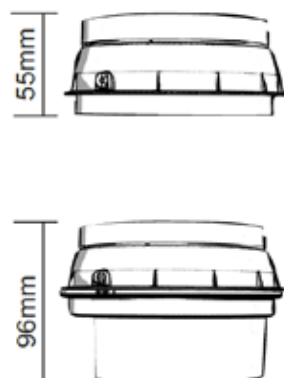
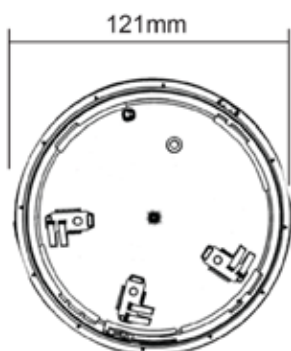
### Environmental Specifications

- Temperature Range: -25°C to +70°C
- Humidity: Max. 93% relative humidity (non-condensing)
- IP Rating:

|                     | NFXI-BS-W | NFXI-DSF-WC | NFXI-BF-WC |
|---------------------|-----------|-------------|------------|
| B501 AP base:       | IP24      | IP21C       | IP24       |
| Surface mount base: | IP44      | IP44        | IP44       |
| Waterproof base:    | IP65      | IP65        | IP65       |

### Approvals

|             |   |
|-------------|---|
| NFXI-BS-W   | EN54-3, EN54-17   |
| NFXI-DSF-WC | EN54-23 Open Category, EN54-3, EN54-17  |
| NFXI-BF-WC  | EN54-17 Please Note: This product is not approved to EN54-23 (Visual Alarm Device) and must not be used as a visual alarm device to provide a primary warning notification of fire. |



## Addressable Loop Powered Wall Mount Sounder, VID & VAD

Notifier's range of wall mount sounders and beacons are high quality loop powered devices designed to alert building occupants of an emergency. Featuring fast and simple installation and control they are powered by the fire panel via the loop wiring. Control of the devices is enabled using on-board switches or via the control panel. The range is installed simply by a twist fit onto the B501AP base.

The Opal wall mount sounder/VAD integrates a high quality 32 tone sounder and high quality beacon into one unit. When triggered by the fire panel its powerful sounder and intense beacon give a visible and audible warning.

The Opal wall mount sounder is a high quality 32 tone sounder. A choice of output levels and tones make the device suitable for a wide variety of applications.

The Opal wall mount VAD is a high quality loop powered device which when triggered by the fire panel emits an intense light to give a visible warning to building occupants.



## Specifications

Opal Addressable Wall VAD - NFXI-WF-WC

Opal Addressable Wall Sounder - NFXI-WS-R

Opal Addressable Wall Sounder/VAD - NFXI-WSF-WC

### Mechanical Specification

|                           | NFXI-WF-WC                   | NFXI-WS-R          | NFXI-WSF-WC |
|---------------------------|------------------------------|--------------------|-------------|
| Height:                   | 51mm                         | 64mm               | 64mm        |
| Diameter:                 | 121mm                        | 121mm              | 121mm       |
| Weight:                   | 238g                         | 168g               | 238g        |
| Body colour*:             | N/A                          | Red                | N/A         |
| Lens colour*:             | Clear                        | N/A                | Clear       |
| Light colour:             | Red                          | N/A                | Red         |
| Beacon flash rate:        | 1Hz                          | N/A                | 1Hz         |
| Number of tones:          | N/A                          | 32                 | 32          |
| Volume settings:          | N/A                          | High, Medium & Low |             |
| Wire gauge for terminals: | 1.5 - 2.5mm <sup>2</sup> max |                    |             |

### Electrical Specification

|                          | NFXI-WF-WC                | NFXI-WS-R                           | NFXI-WSF-RR         |
|--------------------------|---------------------------|-------------------------------------|---------------------|
| Supply voltage:          | 15 to 28VDC               |                                     |                     |
| Standby current:         | 450µA (CLIP) 320µA (Opal) |                                     |                     |
| Max current consumption: | 3.5mA                     | 11.4mA <sup>1</sup>                 | 14.7mA <sup>1</sup> |
| Max sound output:        | N/A                       | 97dB(A) +/-3dB @1metre <sup>2</sup> |                     |

<sup>1</sup> High Volume Tone 21 @24V

<sup>2</sup> High Volume, Tone 8 @24V (Tone Dependent - Figure stated is based on high volume 970Hz continuous @24VDC)

### Environmental Specifications

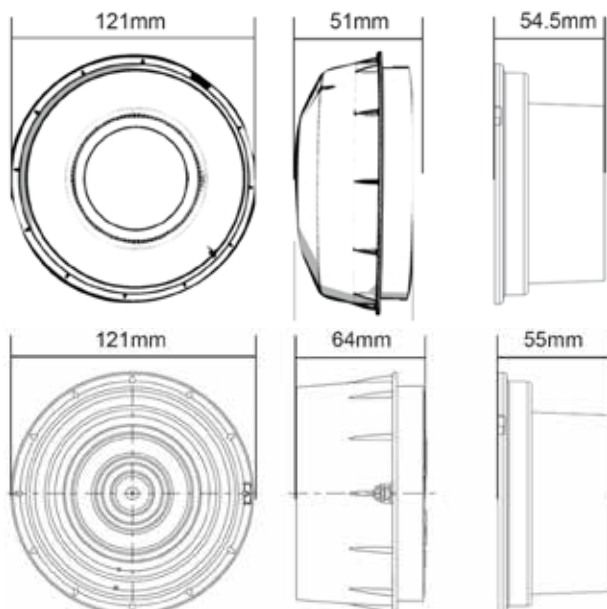
- Temperature Range: -25°C to +70°C<sup>†</sup>
- Humidity: Max. 95% relative humidity (non-condensing)
- IP Rating: IP24 with low profile (B501AP) base  
IP44 with deep bases (BRR, BPW, BDD)  
IP65 for NFXI-BS with sealed deep base (WRR)

### Approvals

- Approved to: EN54-3, EN54-17 and CPD

NFXI-WF-WC  
NFXI-WSF-WC  
NFXI-WSF-RR

Approved to EN54-23 O class  
Approved to EN54-23 O class  
Approved to EN54-3. Not approved to EN54-23 (Visual Alarm Device) and must not be used as a visual alarm device to provide a primary warning notification of fire.



\*Sounders are also available with white body NFXI-WS-W - electrical and mechanical specifications are otherwise the same.

## Addressable Loop Powered Wall / Ceiling Mount VAD

Notifier's Wall or Ceiling mount Visual Alarm Device (VAD) is a high quality loop powered beacon intended to alert building occupants of an emergency. Designed and approved to meet EN54-23, the European standard for VADs, the device generates 360° light coverage making it suitable for both wall and ceiling mount applications.

Featuring fast and simple installation and control they are powered by the fire panel via the loop wiring. Control of the devices is enabled using on-board switches or via the control panel. The range is installed simply by a twist fit onto the B501AP base.

The Opal wall/ceiling mount VAD is a high quality loop powered device which when triggered by the fire panel emits an intense light to give a visible warning to building occupants.



## Specifications

### Opal Addressable Wall/Ceiling VAD - NFXI-WCF-WC

#### Mechanical Specification

|                           |                              |
|---------------------------|------------------------------|
| Height:                   | 51mm                         |
| Diameter:                 | 121mm                        |
| Weight:                   | 210g                         |
| Body colour*:             | Pure White                   |
| Lens colour*:             | Clear                        |
| Light colour:             | White                        |
| Flash rate:               | 0.5Hz**                      |
| Wire gauge for terminals: | 1.5 - 2.5mm <sup>2</sup> max |

#### Electrical Specification

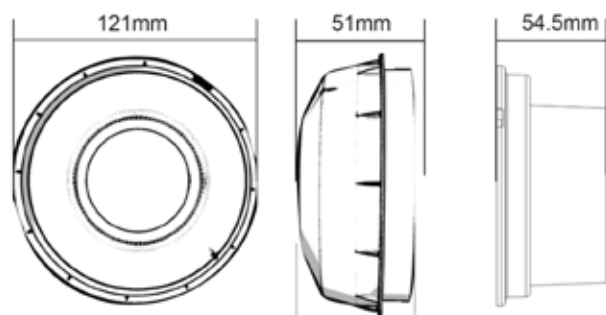
|                              |              |
|------------------------------|--------------|
| Supply voltage:              | 15-29 VDC    |
| Standby current:             | 450µA        |
| Typical current consumption: | 31mA @ 24VDC |
| Max current consumption:     | 40mA @ 20VDC |
| VAD Flash rate:              | 0.5Hz**      |

#### Environmental Specifications

- Temperature Range: -25°C to +70°C
- Relative Humidity: Max. 93% +/- 3% (non-condensing)
- IP Rating: IP21C (with low profile base + IP21 seal)  
IP65 (deep base + seal kit)

#### Approvals






- Approved to: EN54-23, EN54-17



|                         | Ceiling Mount<br>(C - Category)                          | Wall Mount<br>(W - Category) |
|-------------------------|--|------------------------------|
| EN54-23 Approval        | C-3-5.1 / C-6-5.1 / C-9-5.1                              | W-2.4-2.7                    |
| Installation Height     | 3m / 6m / 9m   | 2.4m                         |
| EN54-23 Coverage        | Cylinder $\varnothing = 5.1m$                            | Cube = 2.7m                  |
| EN54-23 Coverage Volume | 61m <sup>3</sup> / 122m <sup>3</sup> / 183m <sup>3</sup> | 18m <sup>3</sup>             |

\*\* Please Note: NFXI-WCF-WC has been developed to flash once every 2 seconds (0.5Hz). Other devices in the range flash once every second (1Hz). As the flash rate is not synchronised we recommend that the two types of device are not mixed on the same installation.

## Product Range at a Glance

| Opal AV Devices (White)   |   | Part Number |
|---|---|-------------|
|    | <b>Base Sounder</b> - Addressable loop powered base sounder, EN54-3 approved. WHITE. Built in loop isolation.   | NFXI-BS-W   |
|    | <b>Base VID</b> - Addressable loop powered visual indicating device (VID). White body, clear lens with red flash. Built in loop isolation.<br>This product is not approved to EN54-23 (Visual Alarm Device) and must not be used as a visual alarm device to provide a primary warning notification of fire.                          | NFXI-BF-WC  |
|    | <b>Base Sounder VAD</b> - Addressable loop powered base sounder, EN54-3 approved, with Visual Alarm Device (VAD), EN54-23 O class compliant. White body, clear lens with red flash. Built in loop isolation.  | NFXI-DSF-WC |
|    | <b>Wall Sounder</b> - Addressable wall mounted loop powered sounder, EN54-3 approved. RED. Built in loop isolation.   | NFXI-WS-R   |
|    | <b>Wall Sounder</b> - Wall mounted, addressable, loop powered sounder, EN54-3 approved, WHITE, with built in loop isolation   | NFXI-WS-W   |
|    | <b>Wall Sounder VID</b> - Wall mounted, addressable, loop powered sounder, EN54-3 approved, with visual indicating device (VID), RED lens. Built in loop isolation.<br>This product is not approved to EN54-23 (Visual Alarm Device) and must not be used as a visual alarm device to provide a primary warning notification of fire. | NFXI-WSF-RR |
|    | <b>Wall Sounder VAD</b> - Wall mounted, addressable, loop powered sounder, EN54-3 approved, with EN54-23 O class compliant Visual Alarm Device (VAD). Clear lens with red flash. Built in loop isolation.   | NFXI-WSF-WC |
|    | <b>Wall VAD</b> - Wall mounted, addressable loop powered EN54-23 O class compliant clear lens with red flash. Built in loop isolation.  | NFXI-WF-WC  |
|    | <b>Wall / Ceiling VAD</b> - White flash EN54-23 W-2.4- 2.7 and C-3-5.1 / C-6-5.1 /C-9-5.1 class approved strobe with clear lens and White body, provides omni directional wall and ceiling mounting to ensure correct installation first time.Built in loop isolation.  | NFXI-WCF-WC |
|  | <b>Base</b> - Addressable base for detector and AV - concealed when AV unit installed, use for all colours  | B501AP      |
|  | <b>Deep Base</b> - Addressable deep base for detector and AV, RED (including B501AP base)   | BRR         |
|  | <b>Deep Base</b> - Addressable deep base for detector and AV, WHITE (including B501AP base)   | BPW         |
|  | <b>Deep Sealed Base</b> - Addressable sealed deep base for detector and AV, RED (including B501AP base)   | WRR         |