

# Non-Addressable Indoor Multi-Tone & Multi-Candela LED Strobe NAC Device (VDOT-MS)



## Description

The Velocity non-addressable indoor range of NAC devices are available in a variety of solutions to fit many requirements.

The VDOT-MS Multi-Tone / Multi-Strobe NAC device has a UL decibel rating between 96dB - 102dB @ 10 ft or the conversion equivalent to 102dB - 110dB @ 1m, depending on the sound output setting.

The sounder can be combined with an integrated high intensity white LED strobe with various candela LED output levels, the VDOT-MS strobe version has a choice of either 15cd, 30cd, 75cd 110cd output levels.

The LED strobe considerably lowers the power consumption when the device is in alarm state, allowing more devices to be controlled and powered on the Velocity notification appliance loop / circuits.

The devices are flush wall mounted as standard or flush or surface wall mounted with the addition of a surface mounting back box.

They are also available in 2 colour options, red or white.

Powered by 2-wire DC24V, these appliances are designed to be connected to, and activated by a UL listed Velocity control panel. When multiple appliances are connected to the Velocity NAC, the sound and light between products on the same circuit area can be synchronised.

When an alarm signal is emitted, it means there may be an emergency, and should be paid attention immediately.



## Features

- Designed to meet UL requirements
- Compatible with all Velocity-UL NAC Circuits
- Adjustable Sound and light output levels
- Indoor use only
- Powered by 2-wire DC 24V.
- Can be installed in a standard square 4 inch square gang box
- Appliances on the same NAC circuit can be synchronised.

## Product Specification

Approval / Standard	UL 464 / UL Laboratories
Mounting / IP Rating	Wall Mount / IP23
Nominal Voltage	Regulated 24 VDC
Operating Voltage Range	Regulated 16 VDC to 33 VDC
Strobe Flash Rate	1x flash per second
Operating Temperature	32 ° to 120 ° F ( 0 ° to 49 ° C)
Humidity Range	10% to 93%, non condensing at 100 ° F ( 38 ° C)
Dimensions H x W x D	140mm x 140mm x 66mm 140mm x 140mm x 106mm with VDOT-BB
Connections	Terminal for 18 AWG to 12 AWG (0.82 mm <sup>2</sup> to 3.31 mm <sup>2</sup> )
Mounting Box	4 x 4 inch Double gang box or Surface Back Box (VDOT-BB)

## Part Numbers

- VDOT-MS/R Flush Mount Multi-Tone & Multi LED Strobe, Red  
 VDOT-MS/W Flush Mount Multi-Tone & Multi LED Strobe, White

### Additions

- VDOT-BB/R Surface Mount Back Box, Red  
 VDOT-BB/W Surface Mount Back Box, White

## Output Levels

### Multi Sounder Output

Output Level	Horn Mode Tone	Sound Pressure Level Measurement dBA
High	Hi / LO	100 db @ 10 ft
High	Siren	101 dB @ 10 ft
High	Slow Whoop	100 dB @ 10 ft
High	Bell	102 dB @ 10 ft
High	Horn	99 dB @ 10 ft
High	500 Hz Horn	99 dB @ 10 ft
High	60BPM	101 dB @ 10 ft
High	120BPM	102 dB @ 10 ft
Standard	Hi / LO	98 dB @ 10 ft
Standard	Siren	101 dB @ 10 ft
Standard	Slow Whoop	97 dB @ 10 ft
Standard	Bell	101 dB @ 10 ft
Standard	Horn	96 dB @ 10 ft
Standard	500 Hz Horn	98 dB @ 10 ft
Standard	60BPM	99 dB @ 10 ft
Standard	120BPM	100 dB @ 10 ft

The minimum sound pressure is measured in UL-reverberant test chamber @ 24VDC

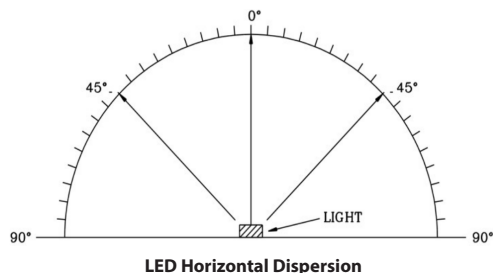
### Multi LED Strobe

Candela Rating	Input Voltage Regulated DC	Maximum Operating Current RMS*
15	24 VDC	50 mA
30	24 VDC	70 mA
75	24 VDC	85 mA
110	24 VDC	110 mA

## Strobe Light Output

There are four grades in the S/V appliance strobe strength:  
 15cd (factory preset), 30cd, 75cd, 110cd, adjust the slide switch to the required brightness in the back of the product (See Figure 8)

There is a small window under the lens to observe the strength grade (See Figure 7). The strobe dispersion ratings of the product follow the standard UL 1638, the relationship between the angle and the strength is as following tables:



<b>Wall Mount Strobe Vertical and Horizontal Light Dispersion Ratings (Room Temperature)</b>			
Vertical Dispersion (wall to floor)		Horizontal Dispersion	
X-Plane Degrees*	Percent of rating	Y-Plane Degrees*	Percent of rating
0	100	0	100
5 - 30	90	± 5 - 25	90
35	65	± 30 - 45	75
40	46	± 50	55
45	34	± 55	45
50	27	± 60	40
55	22	± 65 - 70	35
60	18	± 75 - 80	30
65	16	± 85 - 90	25
70	15	Compound ± 45 right	24
75	13	Compound ± 45 left	24
80 - 90	12		

\*Tolerance of ± 1 degree is permitted.

## Strobe - Candela Setting

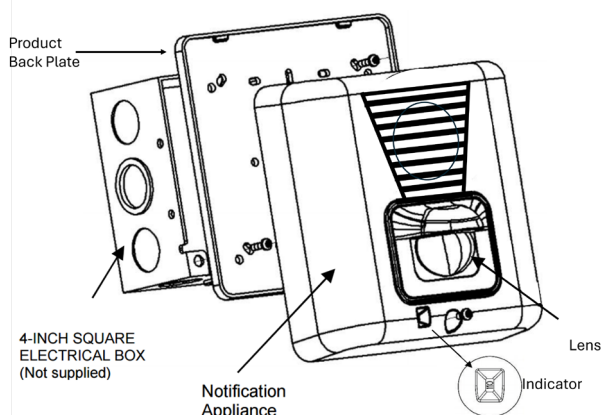
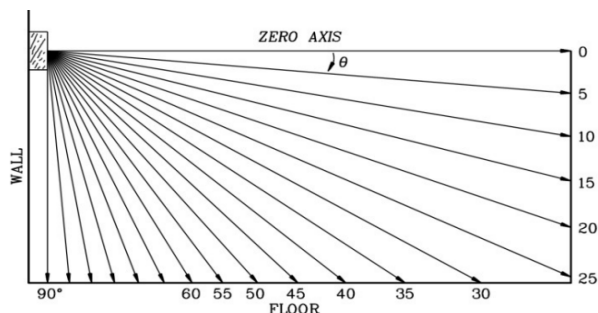
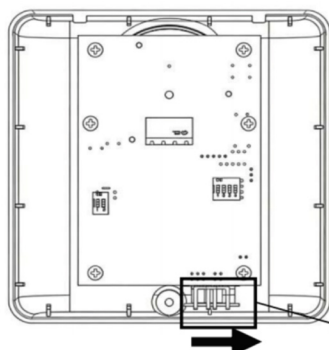


Figure 7.



LED Dispersion Wall to Floor



Insert a screwdriver into the candela selector, slide left or right to select the strength grade.

Figure 8.

## Wiring

Ensure that the total current consumption of the circuit does not exceed the maximum load current of the NAC modules or SCM module, the device quantity must be considered in the design of the loop system.

