



# Discovery Open-Area Sounder Beacon

## PRODUCT DESCRIPTION

The Discovery® Open-Area Sounder Beacon is an alarm device comprising of a sounder, a beacon and a short-circuit isolator for use with Discovery detection systems. It is supplied with a mounting base which incorporates a short-circuit isolator.

## APPLICATION

The Discovery Open-Area Sounder Beacon is used to provide audible and visual warning of fire and is controlled by the fire control panel by means of the Discovery protocol. The particular features of this sounder beacon are available only when it is being controlled by the full Discovery protocol with the panel programmed accordingly. Information on available features should be requested from the panel manufacturer.

## FEATURES

- 15 evacuation tones + 15 secondary or alert tones
- 7 volume levels
- Software-defined group addressing with up to 16 group addresses
- Alarm switching by individual device, by group address or of all devices on loop
- Independent control of sounder and beacon
- Set-up and testing of devices at point of installation



Part no 58000-005 (red base and lens)

- Isolator status information
- Sounder automatically silences after 20 minutes
- Class change bell tone
- Unique acoustic self test

## ADVANTAGES OF THE OPEN AREA SOUNDER BEACON

The right tone for your installation  
The Open-Area Sounder Beacon offers a choice of 15 evacuation tones, including the standard Apollo evacuation tone. One of these tones is selected during commissioning in order to suit local regulations or customs.



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The tones include those required by Dutch, Swedish, German, Australian, New Zealand and North American standards.

Whichever evacuation tone is selected there is a secondary tone which may be used for alerting or warning of a possible evacuation. A full list of available tones is listed in Table 2 overleaf.

#### The right level of sound

The sounder is set during commissioning to one of 7 levels of sound, the highest level being nominally 100dB(A).

At 60dB(A) the lowest level falls outside the scope of the standard EN54. It has been included to provide a very local warning for the use of personnel in particular environments, such as nurse stations in hospitals.

#### Flexibility of group addressing

In many installations a fire alarm must be raised by switching more than one sounder beacon to alert or alarm simultaneously. This is achieved with Discovery Open-Area Sounder Beacons by assigning devices to groups. One command will then switch all devices in the group.

#### Sounder, beacon or both

The Discovery Open-Area Sounder Beacon normally switches both sounder and beacon to provide an alert or evacuation signal. There might be instances where a flash or a sounder would not be permitted.

It is a simple choice as to whether to switch both sounder and beacon together or to switch either as necessary.

#### Location-specific volume setting

Detectors and sounder beacons are installed in many different types of environment.

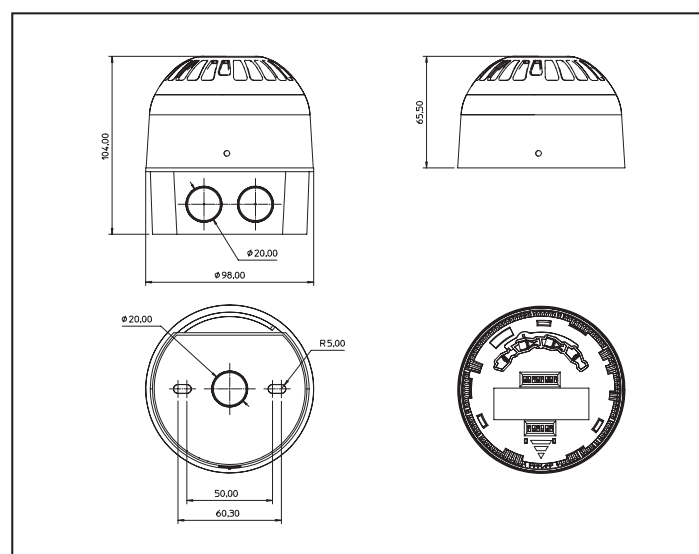
When configuring the Discovery Open-Area Sounder Beacon the adjustment of the volume can be done at the point of installation.

The commissioning engineer simply sets the control panel to 'Set-up' and then walks from one device to the next to set the required volume, using a magnetic wand, part no 29650-001. When all devices have been set the engineer simply presses a button on the control panel which then registers all the individual volume settings.

#### Technical data

Operating voltage (polarity sensitive)	17–28V DC
Protocol pulses	5–9V
Current consumption at 24V	
switch-on surge, <1s	1,2mA
quiescent	450µA
device operated at maximum volume	8,2mA
Maximum sound output at 90°	100dB(A)
Sound pressure level data is published in PIN sheet PP2203 available from Apollo	
Operating temperature	-20°C to +60°C
Humidity (no condensation)	0–95%
IP rating	65

#### Dimensional drawing (mm)



## Protocol Usage

The Discovery Open-Area Sounder Beacon only operates with the Discovery protocol, for details please see Table 1 below.

Output Bits	
<b>2</b>	<b>Beacon control</b>
<b>1</b>	<b>Sounder control</b>
<b>0</b>	<b>0=Alert, 1=Evacuate</b>
<b>Interrupt</b>	<b>No</b>
Analogue Value	
<b>1</b>	<b>Sounder failure</b>
<b>2</b>	<b>Beacon failure</b>
<b>3</b>	<b>Sounder and <i>beacon failure</i></b>
<b>4</b>	<b>General fault</b>
<b>17 to 23</b>	<b>Quiescent, volume setting 1 to 7</b>
Input Bits	
<b>2</b>	<b>Beacon status, 1= On</b>
<b>1</b>	<b>Sounder status, 1= On</b>
<b>0</b>	<b>Confirmation of Alert (0), Evacuate (1)</b>
Flag Setting	
<b>XP95 Flag</b>	<b>Yes</b>
<b>Alarm Flag</b>	<b>No</b>

Table 1

Byte Value	Primary Tone	Frequency		Secondary Tone	Frequency	
1	Apollo Evacuation Tone*	550Hz for 0.5s, 825Hz for 0.5s	T1	Apollo Alert Tone	1s off, 825Hz for 1s	T0
2	Alternating-(Hochiki & Fulleon)	925Hz for 0.25s, 626Hz for 0.25s	T12	Continuous (Hochiki & Fulleon)	925Hz	T11
3	Medium Sweep	800Hz to 970Hz at 1Hz	T14	Continuous	970Hz	T13
4	Fast Sweep	2500Hz-2850Hz at 9Hz	T16	Continuous	2850Hz	T15
5	Dutch Slow Whoop (sweep)*	500Hz-1200Hz for 3.5s, 0.5s off	T3	Continuous	825Hz	T2
6	DIN Tone (sweep)*	1200Hz-500Hz for 1s	T4	Continuous	825Hz	T2
7	Swedish Fire Tone	660Hz, 150ms on, 150ms off	T18	Swedish all clear signal-Continuous	660Hz	T17
8	Aus (fast rise sweep)	3x (500Hz-1200Hz for 0.5s), 0.5s off	T6	Aus Alert Tone	420Hz, 0.625s, 0.625s off	T5
9	NZ (slow rise sweep)	500Hz-1200Hz for 3.75s, 0.25s off	T7	NZ Alert Tone	420Hz, 0.625s, 0.625s off	T5
10	US Temporal LF (ISO 8201)	3x (970Hz, 0.5s on, 0.5s off), 1s off	T19	Continuous	970Hz	T13
11	US Temporal HF (ISO 8201)	3x (2850Hz, 0.5s on, 0.5s off), 1s off	T20	Continuous	2850Hz	T15
12	Simulated Bell-Continuous	n/a	T8	Simulated Bell - Intermittent	1s off, 1s on	T9
13	Emergency Warning Siren	n/a	T10	Emergency Warning Siren-All Clear	n/a	T22
14	Evacuation Tone	970Hz continuous	T13	Alert Tone	Silence for 1s, 970Hz for 1s	T21
15	Apollo Evacuation Tone*	550Hz for 0.5s, 825Hz for 0.5s	T1	Apollo Alert Tone	1s off, 825Hz for 1s	T0

Table 2 \*EN54 Compliant