Discovery Sounder Base

Product Overview

Product	**Sounder Base**
Part No.	**45681-702**
Digital communication	**Discovery**

Product Information

The Discovery Sounder Base is a multifunctional device made up of a mounting base for Discovery fire detectors, a sounder and a short-circuit isolator.

The Discovery Sounder Base can be used with a detector fitted or with a cap for operation as a stand-alone alarm device.

- 15 evacuation tones and 15 secondary or alert tones
- Seven volume levels
- Software defined group addressing
- Unique acoustic self-test
- Alarm switching by individual device, by group or all devices on a loop
- Set-up and testing of devices at the point of installation
- Complies with NEN 2575, DIN 33404 and DIN 0833
- Built-in isolator with status information

Manufacturer's Specification

All data is supplied subject to change without notice. Specifications are typical at 24V, 25°C and 50% RH unless otherwise stated.

Supply voltage	*17-28 V dc polarity sensitive*
Protocol pulses	*5 V - 9 V*
Maximum loop current consumption at 24V dc	
Quiescent	*370 µA*
Switch-on surge	*1.2 mA for <1 second*
Device operated at maximum volume	*5.5 mA*
Sound output - maximum at 90°	*90 dB (A) ± 3 db(A)*
Nominal sounder output ± 3 dB(A) at 28 V	
Level 1 - 60 db(A)	*1 mA (not EN54-3 compliant)*
Level 2 - 70 dB(A)	*1.3 mA*
Level 3 - 74 dB(A)	*1.6 mA*
Level 4 - 78 dB(A)	*2.1 mA*
Level 5 - 82 dB(A)	*2.8 mA*
Level 6 - 86 dB(A)	*4 mA*
Level 7 - 90 dB(A)	*5.5 mA*
Operating temperature	*-20°C to +60°C*
Humidity (no condensation)	*0-95% RH*
Designed to IP Rating	*IP21C*
Dimensions	*115 mm diameter x 38 mm height*
Weight	*140 g*
Materials	*Housing: White flame-retardant polycarbonate*
	Terminals: Nickel plated stainless steel

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Application

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

The Advantages of the Sounder Base

The right tone for your installation

The Discovery Sounder Base offers a choice of 15 evacuation tones, including the standard Apollo evacuation tone. One of these tones should be selected during commissioning in order to suit local regulations or customs. The tones include those required by Dutch, Swedish, German, Australian, New Zealand and North American Standards as well as the U.K.

Whichever evacuation tone is selected there is a secondary tone which may be used for alerting or warning of a possible evacuation.

The right level of sound

The sounder is set during commissioning to one of seven levels of sound, the highest level being nominally 90 dB(A). The lowest level, 60 dB(A) falls outside the scope of the standard EN54. It has been included to provide a very local warning for the use where personnel are in particular environments such as nurse stations.

Flexibility of group addressing

In many installations a fire alarm must be raised by switching more than one sounder to alert or alarm simultaneously. This is achieved with Discovery Sounder Bases by assigning devices to groups on commissioning, with the group information being stored in each device. One command will the switch on all devices in the group.

Location-specific volume setting

Discovery Sounder Bases are installed in many different types of environment.

When configuring the Discovery Sounder Base the volume adjustment can be made at the point of installation.

Depending on the panel the commissioning engineer simply sets the control panel to ‘Set-up’ and then goes from one device to the next to set the required volume using the magnetic wand (Part No. 29650-001). When all the devices have been set the engineer simply presses a button on the control panel which then registers all the individual settings.

Protocol usage

The Discovery Open-Area Voice Alarm devices only operate with the Discovery protocol as shown below:

Output bits	
2	Visual indicator control
1	Sounder control
0	0 = Alert, 1 = Evacuate
Interrupt	No
Analogue value	
1	Sounder failure
2	Visual indicator failure
3	Sounder and visual indicator failure
4	General fault
17 to 23	Quiescent, volume setting 1 to 7
Input bits	
2	Visual indicator status, 1 = On
1	Sounder status, 1 = On
0	Confirmation of alert (0), Evacuate (1)
Flag setting	
XP95 flag	Yes
Alarm flag	No

EMC Directive 2014/30/EU

The Discovery Sounder Base complies with the essential requirements of the EMC Directive 2014/30/EU, provided that it is used as described in this datasheet.

A copy of the Declaration of Conformity is available from the Apollo website: www.apollo-fire.co.uk

Conformity of the Discovery Sounder Base with the EMC Directive, does not confer compliance with the directive on any apparatus or systems connected to it.

Construction Products Regulation (EU) 305/2011

The Discovery Sounder Base complies with the essential requirements of the Construction Products Regulation (EU) 305/2011.

A copy of the Declaration of Performance is available from the Apollo website: www.apollo-fire.co.uk.

Tone settings

Byte value	Primary tone		Tone No.	Secondary tone		Tone No.
1	Apollo Evacuation Tone*	567 Hz for 0.5 seconds 850 Hz for 0.5 seconds	T1	Apollo Alert Tone*	1 second off, 1 second 850 Hz	T0
2	Alternating - Hochiki and Fulleon*	925 Hz for 0.25 sec- onds 626 Hz for 0.25 sec- onds	T12	Continuous* Hochiki and Fulleon	925 Hz	T11
3	Medium Sweep*	800 Hz to 970 Hz at 1 Hz	T14	Continuous	970 Hz	T13
4	Fast Sweep	2500 Hz -2850 Hz at 9 Hz	T16	Continuous	2850 Hz	T15
5	Dutch Slow Whoop - sweep*	500 Hz to 1200 Hz for 3.5 sec, 0.5 sec off	T3	Continuous*	850 Hz	T2
6	DIN Tone - sweep*	1200 Hz to 500 Hz for 1 sec	T4	Continuous*	850 Hz	T2
7	Swedish Fire Tone*	660 Hz, 150 ms on, 150 ms off	T18	Swedish all clear signal - continuous*	660 Hz	T17
8	Australia - fast rise sweep	3 x (500 Hz - 1200 Hz for 0.5 sec), 0.5 sec off	T6	Australia Alert Tone	420 Hz, 0.625 sec, 0.625 sec off	T5
9	New Zealand -slow rise sweep	500 Hz - 1200 Hz for 3.75 sec, 0.25 sec off	T7	New Zealand Alert Tone	420 Hz, 0.625 sec, 0.625 sec off	T5
10	US Temporal LF ISO8201	3 x (970 Hz, 0.5 sec on, 0.5 sec off) 1 sec off	T19	Continuous	970 Hz	T13
11	US Temporal HF ISO8201	3 x (2850 Hz, 0.5 sec on, 0.5 sec off) 1 sec off	T20	Continuous	2850 Hz	T15
12	Simulated Bell- Continuous	Continuous	T8	Simulated Bell - Intermittent	1second on 1 second off	T9
13	Emergency Warning Siren	N/A	T10	Emergency Warning - All Clear	N/A	T10
14	Evacuation Tone*	970 Hz continuous	T13	Alert Tone	Silence for 1 second 970 Hz for one second	T21
15	Apollo Evacuation Tone*	567 Hz for 0.5 sec, 850 Hz for 0.5 sec	T1	Apollo Alert Tone*	1 second off 1 second 850 Hz	T0

Tones marked * are EN54 compliant