

OPEN-AREA SOUNDER



Product Overview	
Product	Open-Area Sounder
Part No.	DS-SS100 (Red) DS-SS100 (White)
Digital Communication	Discovery and CoreProtocol® compatible

Compliance



Product Information

The DS-SS100 Open-Area Sounder is loop powered and used to provide audible warning of fire and is suitable for both indoor or outdoor use with Discovery UL and CoreProtocol systems.

- Two volume levels – refer to table overleaf
- Synchronization of tones
- Individual and group addressing
- Built-in Isolator
- Loop-powered

Note: For system compatibility and feature support of this device, please refer to your chosen panel manufacturer.

Technical Data

All data is supplied subject to change without notice. Specifications are typical at 24 V, 73°F and 50% RH unless otherwise stated.

Supply voltage	17-28 V dc
Modulation voltage	5-9 V peak to peak
Digital communication	Discovery and CoreProtocol compatible
Maximum loop current consumption at 24V dc	
Normal standby	< 310 µA
Operated 28 V highest audibility	5.4 mA
Operated switch on surge	< 6 mA for one second
Operating temperature	14°F to 131°F (10°C to 55°C)
Humidity (no condensation or icing)	0-95% RH
Designed to IP Rating	IP65
Standards and approvals	UL, CFMS
Weight	3.70 oz
Dimensions	4.09 in. (104 mm) diameter x 3.84 in. (97.5 mm) high
Materials	Red flame-retardant polycarbonate

Features

A nominal sound output as per the table overleaf is achieved at a current consumption of 8.2 mA. Many control panels will be able to drive up to 20 sounders per loop on average. However, the maximum number of devices that may be connected to a particular loop should be determined by a loop loading calculation using the Discovery Loop Calculator, which is available as a free download from www.discovery.rs.

Since the DS-SS100 Open-Area Sounder is intended for use in open areas it is possible for more than one device to be audible at any given point in a building. For this reason the operation of all may be synchronised by the control panel.

The devices can be assigned either group or individual group addresses so that the functional options of the sounder are identical with those of the Sounder Control Unit.

Electrical operation

The DS-SS100 Open-Area Sounder is powered directly from the loop and needs no external power supply. It operates at 17 V - 28 V dc and is polarity sensitive.

OPEN-AREA SOUNDER

Tone frequency and volume control

The tone and volume control can be used to adjust the sound as per the table below.

Synchronisation

The sounder also offers synchronisation of continuous and pulsed tones. This ensures the integrity of alert-signals - tones from different sounders do not merge into one signal that could be mistaken for an 'evacuate' tone.

Addressing

The Open-Area Alarm Devices respond to their own individual addresses set with a DIP switch.

They can also respond to a 'Group Address' which enables multiple sounders to be controlled simultaneously. A group address may be any spare address between 112 and 126

and is selected by means of a four segment DIP switch. A device

under group address control must have an individual address between one and 111 otherwise a fault value of four is transmitted.

Devices not using the group address facility may be addressed at any address (1 - 126).

Protocol compatibility

The alarm devices will operate only with control equipment using the Discovery protocol.

The features of the Open-Area Alarm Devices are available only when the sounder is connected to a control panel with the appropriate software.

Tone Selection							
Low volume (DIP 8 = ON)							
Output bit 1	Output bit 2	DIP5	DIP6	Tone description	Tone	Tone type	Output dB(A) at 10ft
0	1	0	0	UL	Continuous 2900 Hz	Alert	70.6
1	0	0	0	UL	ANSI 2900 Hz	Evacuate	67.8
0	1	0	1	New Zealand	Pulsed 420 Hz	Alert	71.8
1	0	0	1	New Zealand	500-1200 Hz Slow whoop	Evacuate	70.0
0	1	1	0	Australian	Pulsed 420 Hz	Alert	71.6
1	0	1	0	Australian	500-1200 Hz Whoop	Evacuate	67.3
0	1	1	1	Standard	Pulsed	Alert	72.9
1	0	1	1	Standard	Continuous alternating	Evacuate	75.0

High volume (DIP 8 = OFF)							
Output bit 1	Output bit 2	DIP5	DIP6	Tone description	Tone	Tone type	Output dB(A) at 10ft
0	1	0	0	UL	Continuous 2900 Hz	Alert	79.1
1	0	0	0	UL	ANSI 2900 Hz	Evacuate	75.3
0	1	0	1	New Zealand	Pulsed 420 Hz	Alert	75.9
1	0	0	1	New Zealand	500-1200 Hz Slow whoop	Evacuate	75.5
0	1	1	0	Australian	Pulsed 420 Hz	Alert	75.2
1	0	1	0	Australian	500-1200 Hz Whoop	Evacuate	71.7
0	1	1	1	Standard	Pulsed	Alert	78.3
1	0	1	1	Standard	Continuous alternating	Evacuate	80.8