3067-01

Product description

Description

The ZP755W-2 is an addressable, weatherproof sounder, designed for use on Ziton analogue addressable fire detection and alarm systems. Conforming to EN54 Part 3, the sounder has been developed for outdoor applications, or for use in areas where the ingress of water can be expected, for example where hygiene requirements demand regular washing or hosing down of the protected area.
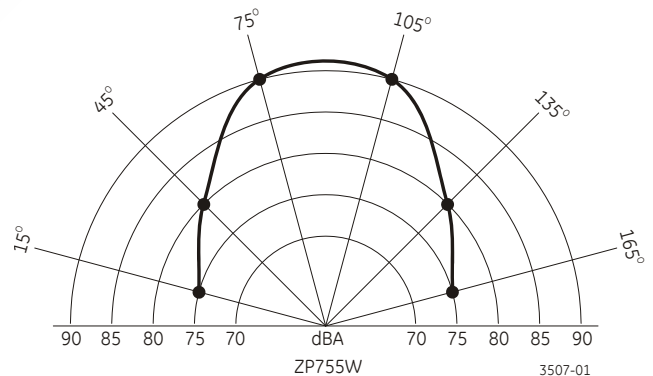
Application

Installed directly onto the wiring loop - the ZP755W-2 enables the system designer to offer a complete analogue addressable system on a single pair of wires. Installation costs are greatly reduced, whilst system integrity, sounder options and programmed alarm organisation are significantly increased.

The unit's high efficiency acoustic design and sound transducer, provides a forward sound dispersion with an output of 90 dBA. A volume control is included for areas where a reduced sound output is required, but this control must be fully clockwise to conform to EN54 Part 3 sound output levels.

The ZP755 range features a unique self test facility - automatically activated during routine sounder testing. A built in microphone circuit measures sound output level and automatically signals the sounder address and location to the control panel, should volume fall below the expected test level.

In systems where loop lengths or current requirements are excessive, ZP755W-2 sounders can be powered directly from an external power supply. All ZP755W-2 sounders incorporate switch settings enabling them to be assigned a unique address, which is polled by the panel every two seconds.

Continuous, intermittent and two-tone outputs are available, from which any combination can be chosen to provide alert and evacuate, two stage alarms. All sound types comply with BS 5839 Part 1:1988 recommended frequencies (in accordance with EN54 Part 3).

Moulded in high impact thermoplastic, the sounder is available in red.

Specifications

Design Specification:	EN54 Part 3
Designation:	Addressable Weatherproof Sounder
Model No./Part No.	
ZP755W-2R (red)	178601
Compatibility:	Ziton analogue addressable systems
Mounting:	Surface
Addressing method:	7-way Dipswitch
Wiring:	2-core loop
Monitoring:	
ZP loop - open and short circuit fault	
Sound output level - self-test facility	
Sound output	
Tone 1	continuous 980 Hz
Tone 2	intermittent 980 Hz (0.5 sec on/off)
Tone 3	two tone warble 980 Hz/670 Hz
Sound distribution:	Narrow
Sound level (at 1 m)	90 dBA minimum

CNPP anechoic sound levels:

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Operating voltage:	External supply – 18 to 30 VDC
	Loop supply – ZP protocol 19.5 - 20.5 V pulsed, max. 4 V line loss

Current (line powered)

Quiescent (RMS):	820 µA
Alarm (RMS):	6 mA
Alarm (maximum avg. - excl. device address):	16.3 mA
Alarm (maximum at device address):	24.65 mA

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Current (externally powered)

Quiescent (RMS):	470 μA
Alarm (RMS):	500 μA
Max number:	50 per 1 km loop (subject to cable size and sounder spacing)

Environmental

Application:	Outdoor use
EN60529 rating:	IP33C
Temp. range:	-10 to 70 °C
Humidity range:	10% to 95% RH (non-condensing)

Construction

Material:	Moulded thermoplastic
Dimensions (W × D):	120 × 150 mm
Colour:	Red
Weight:	610 g

Manufacturer traceability

A barcode label is affixed to each product (see example below). This label reflects, amongst other things, the date of manufacture of the product in the form YYDDD.

Part Number   Date

GN: XXXXXX. XXX YYDDD

JJJJJXXXXX

Bar code Auto human readable on   Job No/Serial No

These numbers are interpreted as follows:

YY = year of manufacture

DDD = day of manufacture

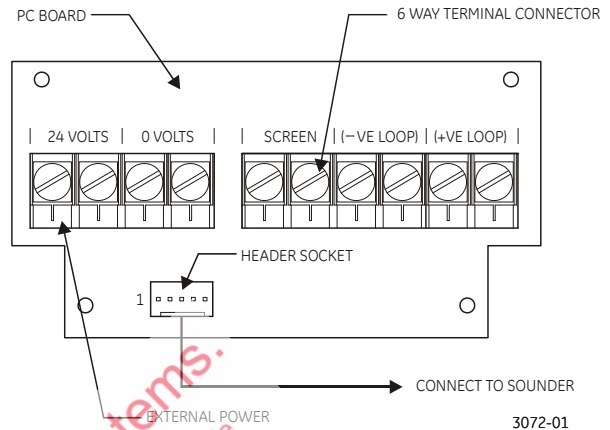For example the numbers 07134 would indicate that the product was manufactured on the 134th day of the year 2007, which is 14th May 2007.

Physical installation

Connecting wiring

Loop and optional external power cables connect to terminals on the back box. See Figure 1 below.

Figure 1

PC BOARD — 6 WAY TERMINAL CONNECTOR

| 24 VOLTS | 0 VOLTS | SCREEN | (−VE LOOP) | (+VE LOOP) |

HEADER SOCKET

CONNECT TO SOUNDER

EXTERNAL POWER

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Mounting the sounder

Insert four M4 × 25 mm screws through the mounting holes and secure the sounder back box to the surface. See Figure 2 below.

Figure 2
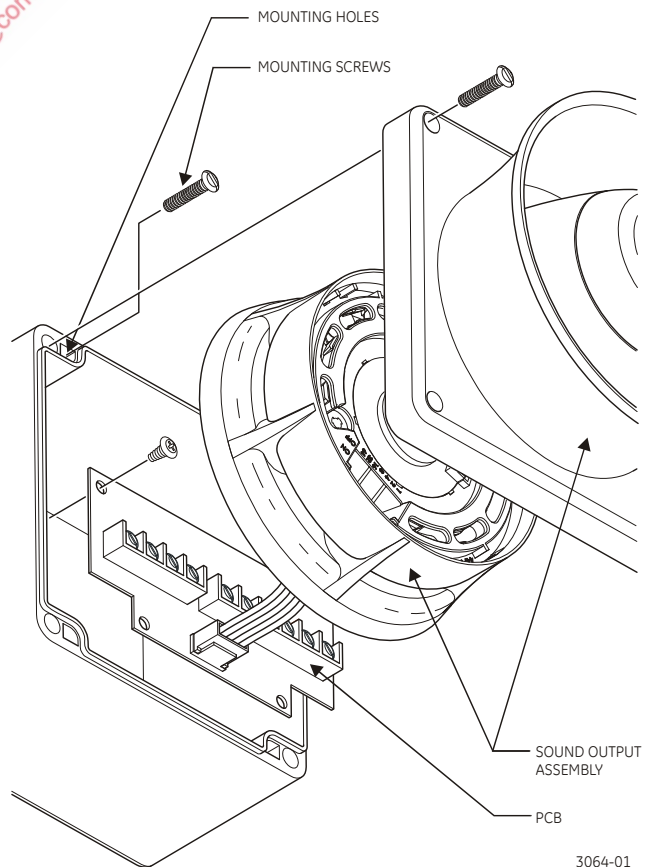
MOUNTING HOLES
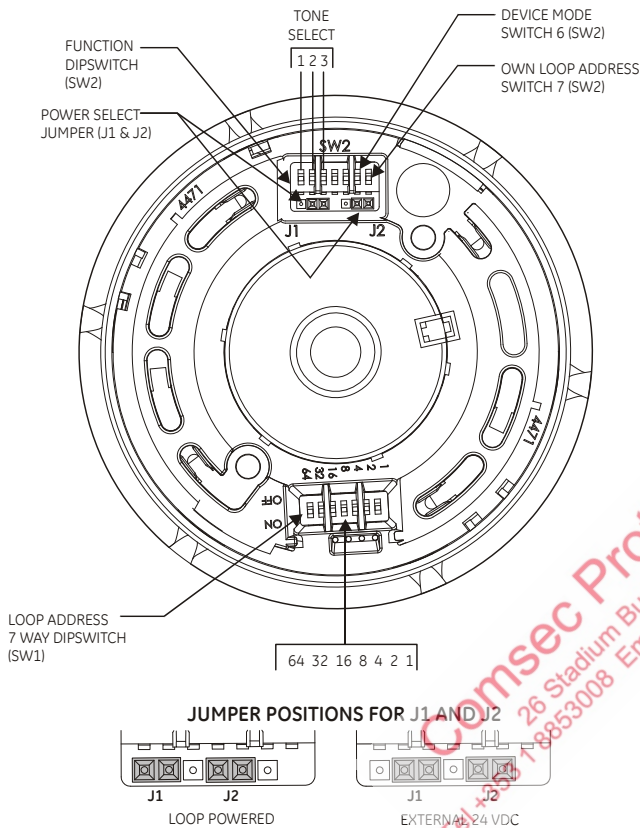
MOUNTING SCREWS

SOUND OUTPUT ASSEMBLY

PCB

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Operating power

The ZP755W-2 can be powered directly from its address loop (setting 1), or externally from a 24 VDC supply (setting 2). See Figure 3 below.

Setting the address

The switch is used to set the device address in binary code. The switch may be set to represent all addresses from 1 to 127. See Figure 3 below.

Figure 3

FUNCTION DIPSWITCH (SW2)

POWER SELECT JUMPER (J1 & J2)

TONE SELECT
1 2 3

DEVICE MODE SWITCH 6 (SW2)

OWN LOOP ADDRESS SWITCH 7 (SW2)

LOOP ADDRESS 7 WAY DIPSWITCH (SW1)

64 32 16 8 4 2 1

JUMPER POSITIONS FOR J1 AND J2

J1   J2
LOOP POWERED

J1   J2
EXTERNAL 24 VDC

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Operating modes

The ZP755W-2 sounder may be operated as a dedicated sounder when switch 7 on dipswitch SW2 is set to ON. See Figure 3 above.

Operation as a stand-alone sounder

Own unique loop address	Switch 7 = ON

Navigate to the following menu to tag the sounders as SAB:

ZP3 Panel Menu/Setup/Sounders/SAB/Add SAB.

The Planner program can also be used.

To map an alert to evac function the first input type must be a fast flash input. The sounder will sound the alert tone in response to a fast flash input. The sounder will sound the evac tone when the input configured as steady is triggered, overriding the alert tone

Emulation

The ZP755W-2 can operate as a ZP755W-2 or emulate a ZP754. See Figures 3 and 4.

1. **ZP755 Mode**

    Set switch 6 (dipswitch SW2) to OFF. Provides user selectable 2-tone operation and full monitoring.

    Operates with ZP3 software 1.18 or higher.

2. **ZP754 Emulation mode**

    Set switch 6 (dipswitch SW2) to ON. Emulates ZP754, provides 2 fixed tones. Use with ZP5 panels or ZP3 panels with legacy software.

Tone settings

See Figures 3 and 4.

Two different tones can be programmed to operate from the panel. In ZP755W-2 mode these tones are selected using switches 1, 2 and 3 on the function dipswitch SW2.

For mode selection, refer to Operating modes.

Note: In the ZP panel I/O mapping menu, outputs are programmed as "steady" or "flashing". The link to the table below is as follows:

Tone A = Panel setting "fast flash/slow flash."

Tone B = Panel setting "steady."

Volume setting

See Figure 4. Volume can be adjusted using the volume control potentiometer.

Warning: **To conform to EN54 Part 3 sound output levels, the volume control pot MUST be set to the fully clockwise position. If the volume is adjusted lower for any reason, it MUST be returned to the fully clockwise position.**
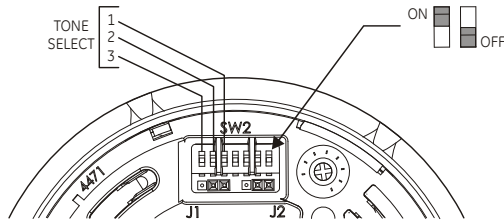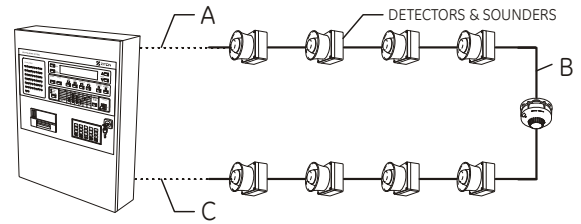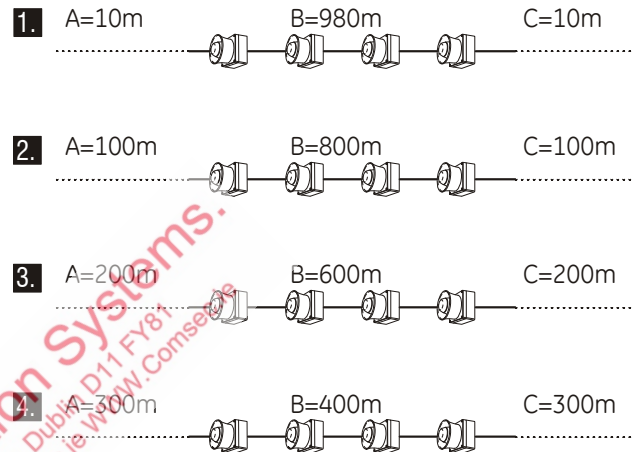
Figure 4

Switch setting for device mode Switch 6	Device mode		DIP Switch setting (1) (2) (3)	Mapping input type	
				Fast flash	Steady
				Tone Type	
				Tone A primary/alert	Tone B secondary/evac
OFF	ZP755	0		Intermittent	Continuous
OFF	ZP755	1		Continuous	Intermittent
OFF	ZP755	2		Continuous	Two - Tone
OFF	ZP755	3		Two - Tone	Continuous
OFF	ZP755	4		Two - Tone	Intermittent
OFF	ZP755	5		Intermittent	Two - Tone
OFF	ZP755	6		Not Used	
ON	ZP754	7		Intermittent	Continuous

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Number of sounders per loop

See Figure 5.

The ZP755W-2 sounder can be powered directly from the loop of a ZP5 or ZP3 panel. The table below read in conjunction with figure 5 gives the quantity of detectors and sounders that can be connected to a 2-core screened loop of:

1000 metres cable size 1.5 mm²

1. **10 metres panel to devices**
    50 detectors and 50 sounders
    63 detectors and 42 sounders

2. **100 metres panel to devices**
    45 detectors and 45 sounders
    63 detectors and 40 sounders

3. **200 metres panel to devices**
    40 detectors and 40 sounders
    63 detectors and 37 sounders

4. **300 metres panel to devices**
    37 detectors and 37 sounders
    63 detectors and 35 sounders

Figure 5

A = Cable length panel to first sounder
B = Cable length first to last sounder
C = Cable length last sounder to panel

1. A=10m   B=980m   C=10m

2. A=100m   B=800m   C=100m

3. A=200m   B=600m   C=200m

4. A=300m   B=400m   C=300m

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