

BlazeCut Automatic Fire Suppression System

Component Manual

Specifications and Installation

Sounders and Beacons

ASU001, ASU002, ASU003, ASU004

ASR001, ASR001

ABR001, ABR002

ASB001, ASB8666

AWB012, AWB024





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1 INTRODUCTION

1.1.1 MANUFACTURER INFORMATION

BlazeCut s.r.o., Triblavinská 3191, 90025 Chorvátsky Grob, Slovakia

www.blazecut.com; customerservice@blazecut.com

1.1.2 INSTRUCTIONS FOR USE OF THE MANUAL

This manual is intended to supply technical information for the trained and authorized by BlazeCut. Any personnel performing installation, inspection, maintenance or replacement of components with the BlazeCut system shall have this manual available and proceed solely in accordance with it. Failure to follow the instructions in this manual and any other BlazeCut manuals may result in system malfunctioning, causing damage to the protected equipment and presents serious danger to the life and health of others.

1.1.3 SAFETY FIRST

Please read this manual in its entirety. Operation and installation instructions need to be fully understood before this BlazeCut product is installed. Failure to do so may void warranty. Your local governing regulations for safety and compliance must be followed.

1.1.4 WARNINGS AND CAUTIONS



This symbol within the manual represents warning of specific risks, dangers, or warning of described procedures. Failure to follow the instructions in the text marked with this symbol may result in loss of warranty, damage to property, threat to safety or life of persons performing the operation on the system or persons in the vicinity. Do not proceed without following the instructions marked with such symbols.

1.1.5 FURTHER INFORMATION

BlazeCut® is a registered trademark of BlazeCut and is recorded in the Register of Community Trade Marks.

If any of the instructions in this manual are unclear or in case of further questions, contact the BlazeCut Team.

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WARNING

Please ensure that the safety instructions are fully understood before the equipment is put into service.

Do not modify any part of the BlazeCut components as this may cause serious injury or a failure of the system.

Always wear the appropriate protective equipment and clothing whilst installing or servicing.

2 OVERVIEW

The BlazeCut sounders and beacons are a cost effective compliment for use in areas of high ambient noise. Being high quality, they are robust in dusty and harsh environments. The wide operating voltage and automatic synchronization of the sounders and beacons make them a universal solution for all types of alarm and monitoring systems. You also have the ability to have up to 30 units in the same loop in one system design. Ideal for most applications. An end-of-line resistor is only required for fixed fire panels, they are not required with a BlazeCut panel.

Table 1: Signalling units

Part №	Description
ASU001	Signalling unit, light and sound, 81 dB, CE, 6-28 V DC, CE. Suitable for indoor, fixed, low vibration installations
ASU002	Signalling unit red, sounder and beacon with high base, 114 dB, IP44, EN54-3/CE/LPCB, 24 V DC. Suitable for indoor, fixed, low vibration installations
ASU003	Signalling unit red, sounder and beacon with high base, 101 dB(A), IP65, 18-24 V DC, CE, EN54-3. Suitable for fixed, low vibration installations
ASU004	Signalling unit, combined sounder and beacon, 97 dB, IP65 - Type B - 20-30 V DC, CE, EN54-3, -20 °C up to 70 °C. Suitable for outdoor, fixed, low vibration installations
ASR001	Sounder red, multi tone with high base, 92 dB to 112 dB, IP65, CE/VdS, LPCB, 9-15 V DC, CE, EN54-3. Suitable for fixed, low vibration installations
ASR002	Sounder, multi tone with high base, IP65, EN54-3, voltage range 9-29 V DC, operating temperature: -25 °C +80 °C, deep base. Suitable for fixed, low vibration installations
ABR001	Beacon red xenon, IP65, CE, VdS, 9V-60Vdc, CE, EN54-3. Suitable for fixed, low vibration installations
ABR002	Beacon red LED, IP65, CE, R10, 12-24 V DC, -20°C to +50°C, 3 bolt mounting. Suitable for outdoor mobile applications.
ASB001	Sounder black, 97 dB, IP65, SAE J994 Type C, AMCA, UL, CE, E, 12-24 V DC, -40°C to +85°C. Suitable for outdoor mobile applications.
AWB012	Warning buzzer with red LED dots, 12 V DC, 80 dB (@1m), IP50, -20 to +50 °C, stainless steel, 29 mm diameter. Suitable for fixed and mobile installations. Includes ALA019 label.
AWB024	Warning buzzer with red LED dots, 24 V DC, 80 dB (@1m), IP50, -20 to +50 °C, stainless steel, 29 mm diameter. Suitable for fixed and mobile installations. Includes ALA019 label.
ASB8666	Sign Board optical acoustic with text: "EXTINGUISHING IN PROGRESS", size of text: 135x320 mm, IP65, 12/24 V, 100 dB @1 m, -10 °C to +50 °C, CE, fixed applications



ASU001



ASU002, ASU003



ASU004



ASR001



ABR001



ABR002



ASB001



AWB012 and AWB024



ASB8666

3 INSTALLATION, GUIDANCE AND ADVICE

3.1 GENERAL SAFETY ADVICE

- Do not work on live circuits
- Follow local wiring regulations where relevant
- Ensure that the base is secured to the mounting surface using the most appropriate fixings. Plasterboard walls will require special wall plugs.



Be aware of the danger posed by the protected device. When working in the vicinity of electrical equipment observe corresponding safety rules and instructions. Work on electrical installations may be performed only by qualified persons.

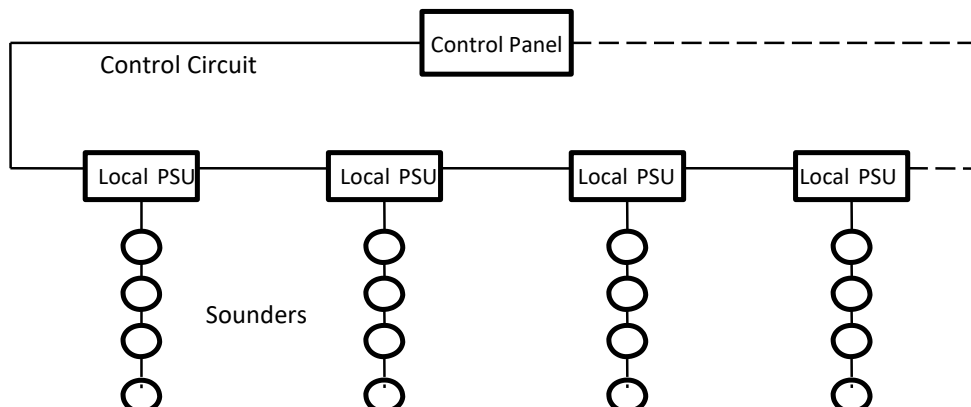
3.1.1 MAINTAINING IP (INGRESS PROTECTION) RATINGS – GOOD PRACTICE

- Use suitable cable glands to maintain the designed IP rating. The stated product rating will only be achieved if the product is installed correctly. A selection of suitable glands is available from all good electrical wholesalers. Always follow the cable gland instructions.
- Product orientation is important. If it is desired to achieve a high weatherproof rating, all cables should be brought in and out from the underside of the device. Avoid cable entry from the top side, as water could drain in over time.
- Ensuring that all base and mounting screws are secure.

3.2 POWER SUPPLIES / CONTROL PANELS

- Use a power supply or control panel capable of providing a steady state current of at least 1.2 times the rated operating current of each device.
- Use a power supply or control panel capable of providing a surge current of at least 1.5 times the surge current of each device for at least 10 ms.
- A suitable slow-blow fuse must be fitted to the output stage of all power supplies, to help prevent fuse blowing during power up.

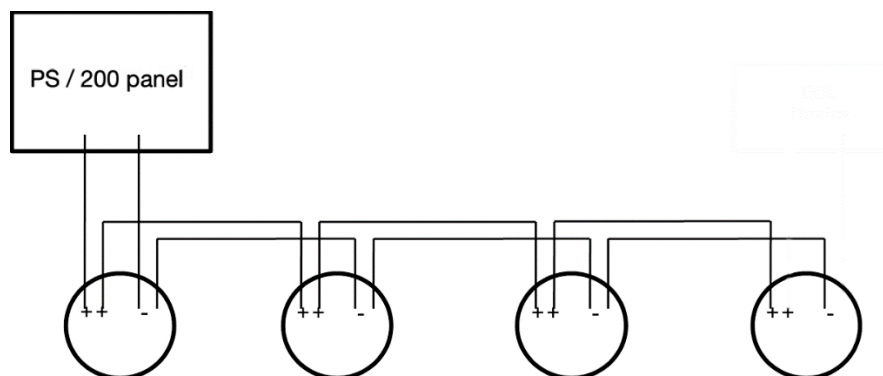
Where a large number of units are to be wired, it is recommended to use multiple power supplies on separate spurs or loops to avoid the huge voltage drops that would otherwise be encountered. See diagram below:



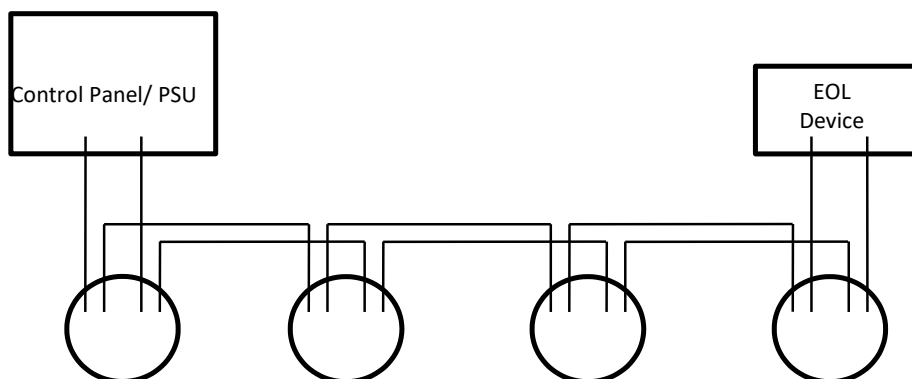
3.3 WIRING

It is essential to know the series resistance of the cable before making a choice here. It is recommended that the thickest wire possible is used. This ensures that the series resistance is minimised and thus the length of the wiring that can be used is maximised. All the measurements and calculations shown on the following pages are for a maximum solid core wire cross sectional area (CSA) of 2.5 mm². If using a different cable type, CSA or a material other than copper is used the value of the series resistance of the cable (Rs) will need to be adjusted in the formula below.

Please note that that all calculations here are for spurs only. It is risky to do calculations on loops, since if one side of a loop were to fail, the maximum equivalent series resistance could double. This may result in possible system start-up problems or poor performance issue due to excessive voltage drops.



Wiring for BlazeCut panels



Wiring for a fixed a fire control panel

3.4 RECOMMENDATIONS

Copper wire with core cross sectional area (CSA) of 2.5 mm² is assumed to be used

- RS (Maximum series resistance of copper wire) = 0.7 Ω per 100 m (typical)
- Power supplies must be capable of delivering surge currents of 1.5x surge current of each device for at least 10 ms
- All sounders are assumed to be wired to the end of a spur (i.e., worst case scenario)
- Where the length of cable or number of sounders used becomes an issue, it is recommended to units together and use a separate power supply & wiring spur for each

3.5 MAINTENANCE

- The product is of a low maintenance design. However, systems should be tested on a regular basis after installation. This is vital where products are used in life safety systems. Please refer to current & relevant maintenance practices.
- If the product is installed in a harsh environment, check seals and housing condition for any obvious signs of wear and tear or damage on a periodic basis.
- Cleaning of the product housing should be carried out using non-abrasive and non-corrosive substances. A lightly moistened soft cloth is usually sufficient.

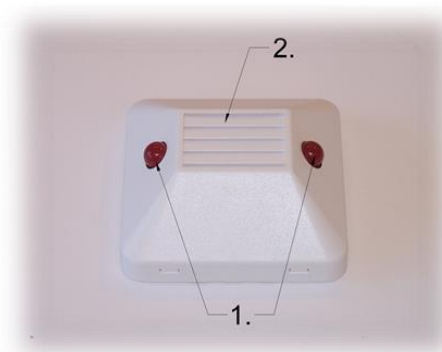
4 ASU001

The BlazeCut ASU001 signalling unit is an optical/acoustic alarm indicators have been designed for use with most types of automatic and non-automatic alarm detectors. This is a very affordable low cost option for fixed applications.

ASU001		
	Signalling Unit, light and sound, 81 dB, CE	
	Monitoring	Reverse polarity protected
	Weight	55 g
	Protection	IP44
	Operation temp	- 25 °C to + 70 °C
	Current	4 mA nominal
	Voltage	6-28 V DC
	Dimension	80 x 80 x 30 mm
	Sound output	81 dB @ 1 m
	Connection	Up to 4 detectors

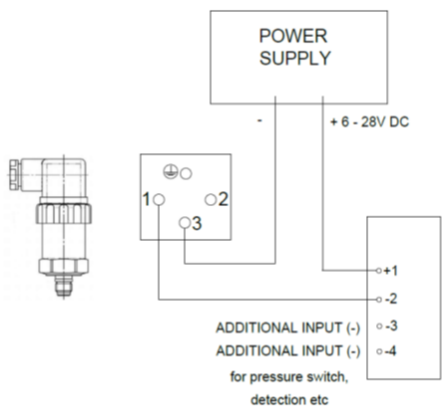
Description of the signalling unit

1. Light-emitting diodes, flashes in case of alert
2. Opening for acoustic detector, makes sound in case of alert



4.1 INSTALLATION

The ASU001 can be mounted onto most types of mounting boxes using the universal mounting plate. Cable insertion is made through the back of the unit via the knockout at the sides of the housing. The wiring terminals allows up to four detectors to be connected. There are two switches to select if a flashing LED is preferred or a constant illumination at time of signal.



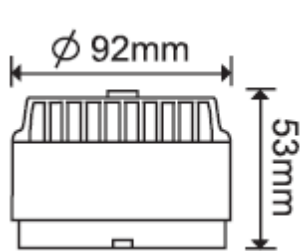
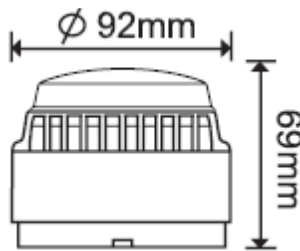
4.2 MAINTENANCE

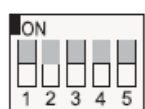
The recommended minimum requirement for sounder and beacons maintenance consists of an annual or biannual cleaning of dust from the unit by using a vacuum cleaner and the cleaning program should be agreed to the individual environment.

5 ASU002

The BlazeCut ASU002 signalling unit is an affordable combined beacon and sounder which is suitable within open areas or corridors and passages. It is able to produce 32 tones via the coding switch on the rear of the unit. Volume control adjustment is also provided.

ASU002		
	Signalling Unit Red Sounder and beacon with high base, IP44, EN54-3/CE/LPCB	
	Monitoring	Reverse polarity
	Weight	0.278 kg
	Protection	IP44
	Operation temp	- 10 °C to + 55 °C
	Current	14.5 mA @ 24 V DC (3 tone)
	Voltage	18 V to 24 V DC
	Sound output	114 dB @ 1 metre
	Cable Thickness	0.28 mm² - 2.5 mm²



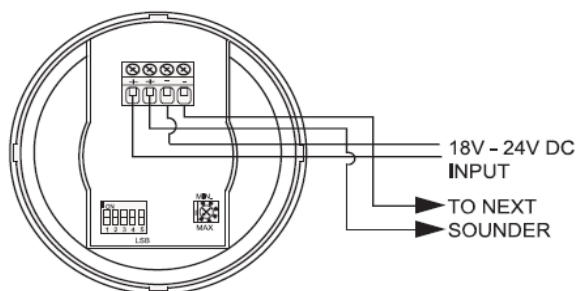


LSB

Sound Output Tone: Switch to " ON " is " 0 ", to numeric is " 1 ".



Sound Output Level



Tone 1) Alternating Tones, 800/970Hz @ 2Hz

Operational Performance Max. 24V DC		
Angle	S-dB(A)	BS-dB(A)
15°	80.5	80.5
45°	86	90
75°	90	88.5
105°	94.5	88
135°	87	90
165°	84.5	82

Tone 2) Sweeping Tones, 800/970Hz @ 7Hz

Operational Performance Max. 24V DC		
Angle	dB(A)	BS-dB(A)
15°	80.5	79.3
45°	85.6	84.3
75°	91	86.2
105°	92	86.3
135°	86	84.3
165°	82	79.1

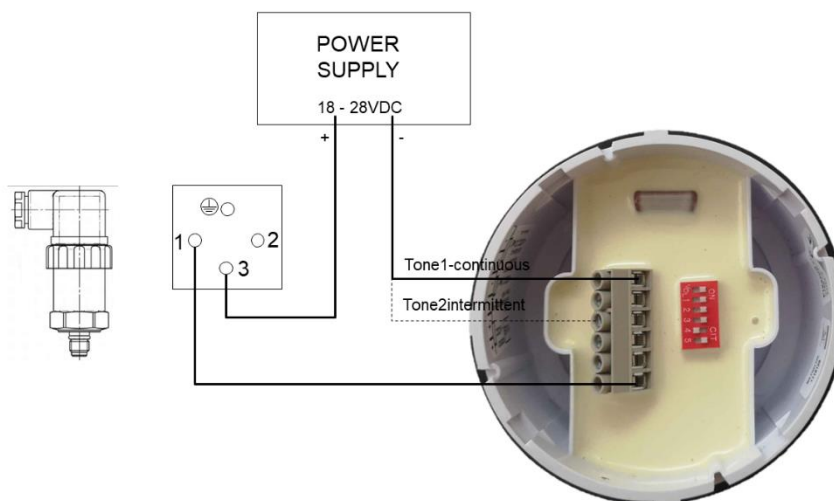
No.	Tones	Code 12345	Output (dB)*1	Current (mA)*2	Current (mA)*a
1	Alternating Tones 800/970 Hz at 2Hz	11111	80	15.1	23
2	Sweeping 800/970 Hz at 7Hz	11110	79	16.1	25.7
3	Sweeping 800/970 Hz at 1Hz	11101	101	14.5	25.8
4	Continuous at 2850Hz	11100	110	37.4	35.6
5	Sweeping 2400 - 2850 Hz at 7Hz	11011	109	25.4	35
6	Sweeping 2400 - 2850 Hz at 1Hz	11010	112	24.2	39.8
7	Slow Whoop	11001	101	14.7	25.8
8	Sweep 1200 - 500 Hz at 1Hz	11000	100	15.7	25.2
9	Alternating Tones 2400/2850 Hz at 2Hz	10111	112	26.4	35.7
10	Intermittent Tones of 970Hz at 1Hz	10110	102	13	24.8
11	Alternating Tones 800/970 Hz at 1Hz	10101	103	16.2	24.8
12	Intermittent Tones of 2850Hz at 1Hz	10100	114	13.7	30.6
13	970Hz at 1/4 sec. on, 1 sec. off	10011	98	13	23.5
14	Continuous at 970Hz	10010	106	19.9	25
15	554Hz for 100ms and 440Hz for 400ms	10001	97	14.5	23.1
16	Intermittent 660Hz 150ms on / 150ms off	10000	93	14.7	23.4
17	Intermittent 600Hz 1.8 sec. on / 1.8 sec. off	1111	96	12.5	23.9
18	Intermittent 600Hz 6.5 sec. on / 13 sec. off	1110	96	12.9	23.9
19	Continuous 660Hz	1101	95	15	23.9
20	Alternating 554/440 Hz at 1Hz	1100	100	14.7	20.1
21	Intermittent 660Hz at 1Hz	1011	95	13.1	23.9
22	Intermittent 2850Hz 150ms on / 100ms off	1010	111	16.1	29.6
23	Sweep 800 - 970 Hz at 50Hz	1001	98	17.7	25.8
24	Sweep 2400 - 2850 Hz at 50Hz	1000	109	33.7	38.8

25	Intermittent 970Hz 500ms on /500ms off	111	102	13	24.7
26	Intermittent 2850Hz 500ms on /500ms off	110	114	13.5	30.7
27	Continuous at 4kHz	101	108	26.5	33.8
28	Intermittent 400Hz 500ms on /500ms off	100	98	14.2	22.9
29	Intermittent 400Hz 500ms on /250ms off	11	95	13.5	26.6
30	Sweeping 320/480 Hz at 40Hz	10	95	14	22.9
31	Intermittent 2kHz 200ms on /500ms off	1	108	14	27.6
32	Off	0			

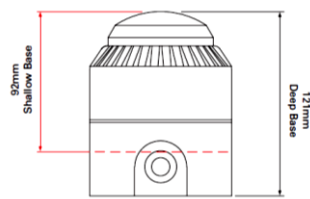
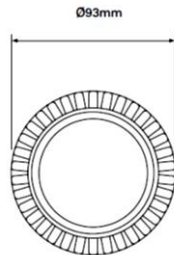
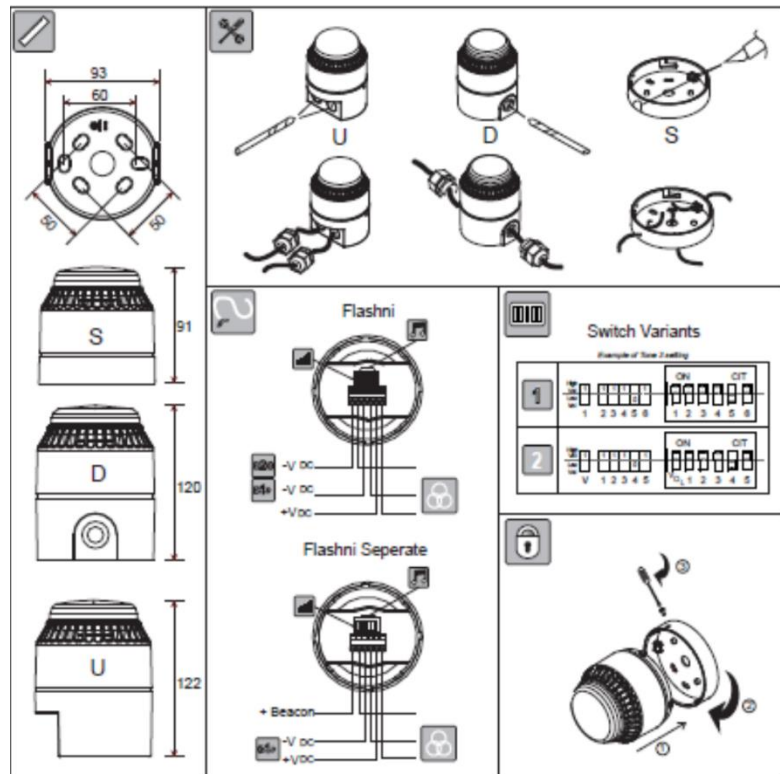
6 ASU003

The BlazeCut ASU003 signalling unit is an audible and visual device which requires one single installation point. This greatly reduces installation costs and is less obtrusive than two separate devices. Versions are available with the sounder and beacon linked, or with separate terminals for independent operation.

ASU003	
	Signalling Unit Red sounder and beacon with high base, 101dB(A), IP65, 18- 24Vdc, CE Exceeds EN54-3
	Monitoring Reverse polarity
	Weight 0.33 kg
	Protection IP65
	Operation temp - 10°C to + 55°C
	Current 68mA @ 24V DC (tone 3)
	Voltage 18V to 28V DC
	Options 3 light outputs; amber, blue, green and clear lens and white body can be requested
	Sound output 101 dB (typical tone 3)
	Cable Thickness 0.28mm ² - 2.5mm ²



AUTOMATIC FIRE SUPPRESSION SYSTEMS





					Main Application			24V @20 °C		
								mA	dB(A)	dB(A)
1	14	1111	800 & 970	Rate	Depiction	BS Fire		68	100	EN54-3
2	14	1110	800 to 970	2Hz (250ms-250ms)		BS Fire		68	101	Min SPL @ 20/00
3	14	1101	800 to 970	7Hz (7/s)		BS Fire		68	101	@ 1000Hz
4	14	1100	2850	1Hz (1/s)		General Purpose		82	110	@ Loudst mode
5	4	1101	2850	Steady		General Purpose		80	110	dB(A)
6	4	1101	2400 to 2850	7Hz		General Purpose		80	110	
7	14	1101	2400 to 2850	1Hz		Dutch fire (NEN 2575)		70	98	
8	14	1100	500 to 1200	3s sweep, 0.5 s silence, then repeat		German fire (DIN 33.404)		66	98	94
9	4	1011	1200 to 500	1Hz		General Purpose		80	109	
10	14	1011	2400 & 2850	2Hz (250ms-250ms)		PFEER alert		62	100	
11	14	1010	970	0.5Hz (1s On/1s Off)		BS Fire		68	100	
12	4	1010	800 & 970	1Hz (500ms-500ms)		General Purpose		74	109	
13	14	1001	2850	0.5Hz (1s On/1s Off)		General Purpose		58	96	
14	14	1001	970	0.8Hz (250ms On/1s Off)		PFEER toxic gas		70	101	
15	14	1000	554 & 440	Steady		French fire (NFS 32-001)		62	93	
16	16	1000	660	100ms-400ms		Swedish (Air Raid)		59	86	
17	17	0111	660	3.3Hz (150ms On/150ms Off)		Swedish (Local warning)		62	88	
18	18	0110	660	0.28Hz (1.8s On/1.8s Off)		Swedish (Pre-mess)		64	89	
19	19	0110	660	0.05Hz (13s Off / 6.5Hz On)		Swedish (All clear)		63	96	
20	20	0110	554 & 440	Steady		Swedish (Turn out)		60	100	
21	21	0101	660	0.5Hz (1s On/1s Off)		Swedish general purpose		72	109	
22	14	0101	2850	1Hz (500ms-500ms)		Pelican crossing		68	101	
23	14	0100	800 to 970	50Hz		BS Fire		75	110	
24	4	0100	2400 to 2850	50Hz		General Purpose		64	99	
25	25	0011	970	3 x 500ms pulses, 1.5s silence, then repeat		ISO 8201		70	108	
26	26	0010	800 to 970	3 x 500ms pulsed sweep, 1.5s silence, then repeat		ISO 8201		85	83	
27	27	0010	970 & 800	3 x 500ms pulsed sweep, 1.5s silence, then repeat		BS Fire		67	100	
28	10	0010	800 & 970	2Hz (250ms-250ms)		BS Fire		71	99	
29	988Hz	0001	990 & 650	2Hz (250ms-250ms) (Symphonic tones)		BS Fire		65	96	
30	510Hz	0001	510 & 610	2Hz (250ms-250ms) (Squashni Micro tones)		General Purpose		71	96	
31	14	0001	300 to 1200	1Hz		BS Fire		85	83	
32	510Hz	0000	510 & 610	1Hz (500ms-500ms)		BS Fire				

- (i) Tones certified under the CPD (Fire Alarm Applications) are shown in the column marked EN54-3
- (ii) All other SPL measurements are taken 'on axis' & are not third party verified.
- (iii) Detailed EN54-3 polar SPL measurements are available in M05-014
- (iii) A SPL of at least 65dB(A) is achieved in at least one direction at minimum volume/voltage.

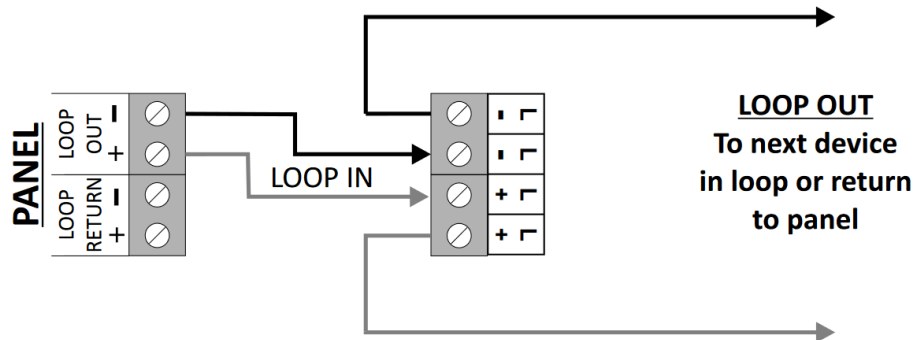


7 ASU004

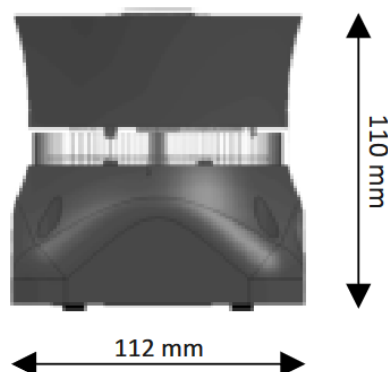
The BlazeCut ASU004 signalling unit is an audible and visual device which requires one single installation point. This greatly reduces installation costs and is less obtrusive than two separate devices.

ASU004		
	Signalling unit, combined sounder and beacon, 97 dB, IP65 - Type B - 20-30 V DC, CE, EN54-3, -20 °C up to 70 °C. Suitable for outdoor, fixed, low vibration installations	
	Signalling unit, combined sounder and beacon, 97 dB, IP65 - Type B - 20-30 V DC, CE, EN54-3, -20 °C up to 70 °C. Suitable for outdoor, fixed, low vibration installations	
	Reset/start-up times	20 sec. max
	Weight	0.254 kg
	Protection	IP65
	Operation temp	- 10°C to + 55°C
	Current	10 mA @ 28 V DC
	Voltage	20 V to 30 V DC
	Case material	Flame Retardant rating UL 94 V2
	Sound output	97.5 dB (@ 1 m – 30 V DC)
	Cable Thickness	0.5 mm ² - 2.5mm ²

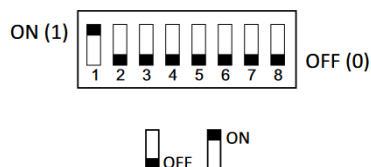
Please note that this device is polarised.



NOTE: Address programmed on switches 1-5 has an OFFSET of 94.
For example if D.I.L. switches 1-5 are all set to OFF the actual
sounder address, as read by the panel, will be 94.



D.I.L. SWITCHES CONFIGURATION



Switches 1-5
used to configure address
in the range 94-125

Switch 6 and 7
Tone Selection

Switch 8
Shadow Sounder

Address Switches

1 ON = 1
2 ON = 2
3 ON = 4
4 ON = 8
5 ON = 16

Sounder Type

Switch No. 8
OFF = Shadow
ON = Normal

TONE SELECTION



ALTERNATING
HIGH-FREQUENCY TONE
2.7 KHz - 3.2 KHz



CONTINUOUS TONE
800 Hz

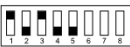


SWEEPING TONE
800-1000 Hz



ALTERNATING
LOW-FREQUENCY TONE
800-1000 Hz

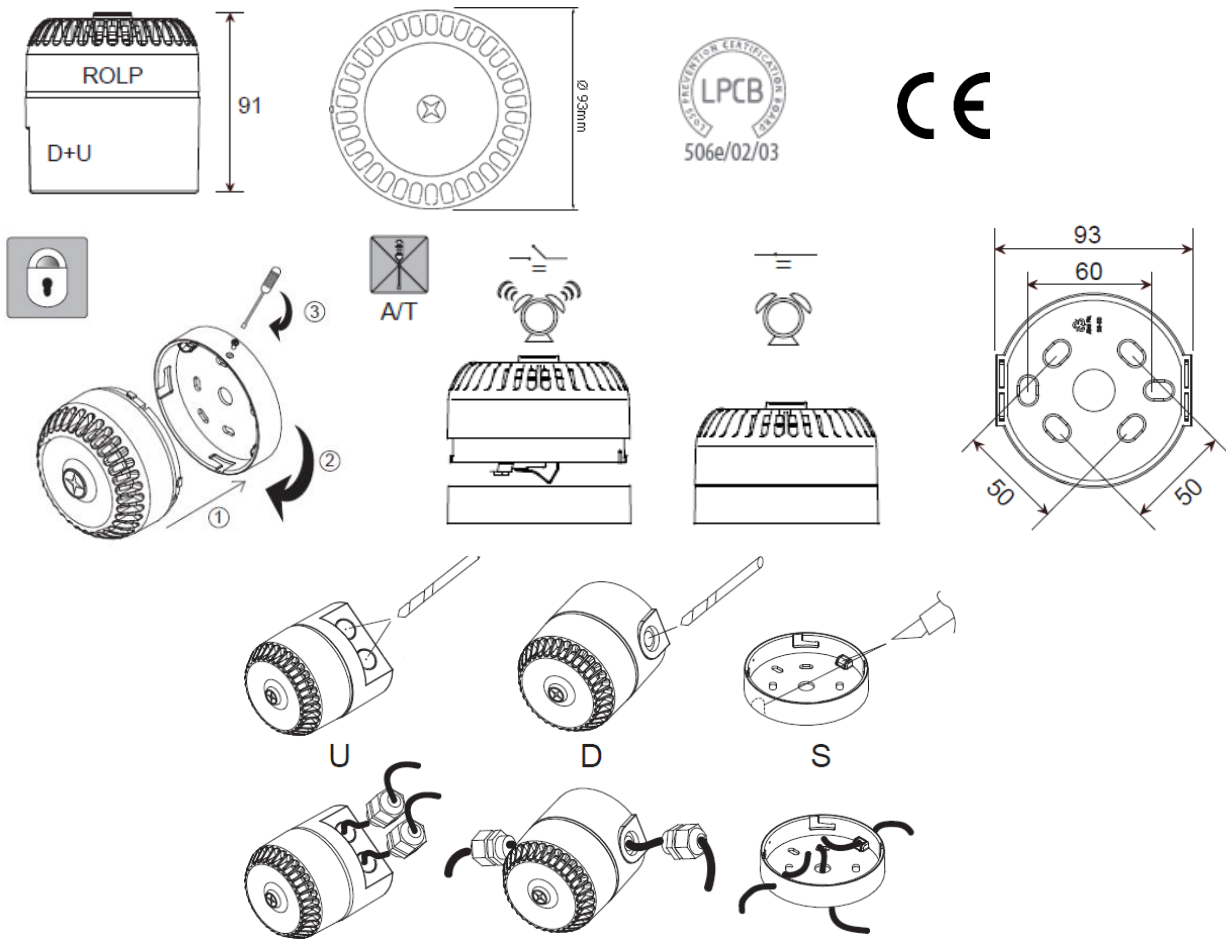
SOUNDER/BEACON ADDRESS SETTINGS

							
94	95	96	97	98	99	100	101
							
102	103	104	105	106	107	108	109
							
110	111	112	113	114	115	116	117
							
118	119	120	121	122	123	124	125

8 ASR001

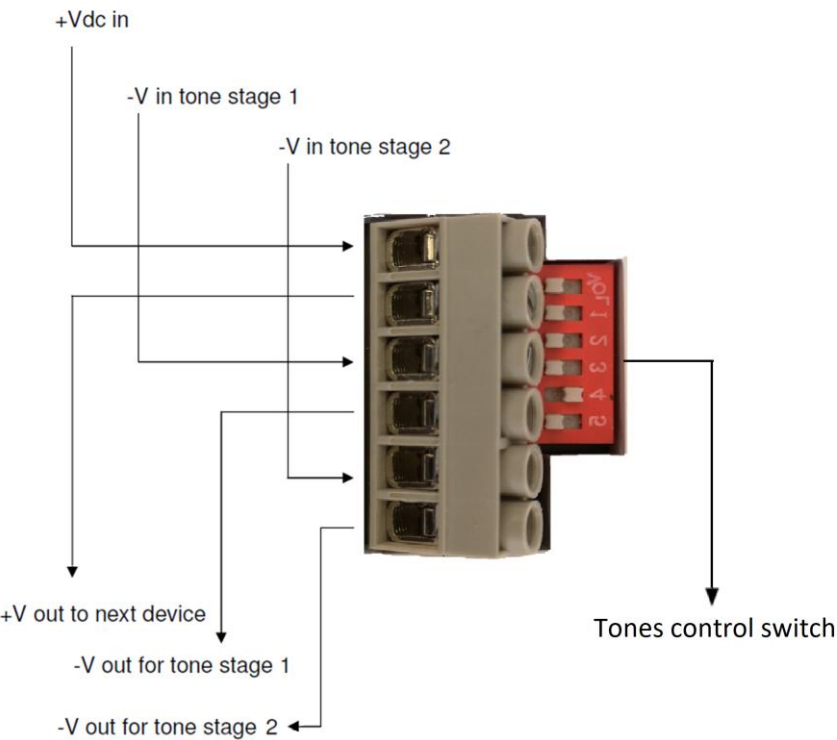
The BlazeCut ASR001 sounder is an affordable wall mounting sounder which is suitable for audible signalling within open areas or corridors and passages. It is able to produce 32 tones via the coding switch on the rear of the unit also a second tone can be activated remotely by using the third terminal. Volume control adjustment is also provided.

ASR001		
	Sounder Red Multi tone with high base, IP65, CE	
	Monitoring	Reverse polarity
	Weight	0.18 kg
	Protection	IP65
	Operation temp	- 25 °C to + 70 °C
	Current	max 32 mA
	Voltage	9-28 V DC (for use on fire systems between 9-15 V DC & 18-28 V DC)
	Cable Thickness	0.28 mm ² - 2.5 mm ²



Operational performance Maximum volume dB(A)						
Angle	Horizontal Plane			Vertical Plane		
	Min 9.0 V	Max 15.0 V	Difference	Min 9.0 V	Max 15.0 V	Difference
15°	80	85	<6	81	86	<6
45°	78	84	<6	81	86	<6
75°	89	94	<6	90	95	<6
105°	89	94	<6	89	94	<6
145°	79	84	<6	78	83	<6
165°	80	85	<6	81	86	<6

ROLP Wiring Instruction details



Roshni Mk III tone based sounders				Tone description				Main Application		Roshni LP (ROLP)			
Primary tone	Secondary tone	Switch setting	Pattern	Frequency Hz	Rate	Depiction		mA	dB(A)	EN54-3	mA	dB(A)	EN54-3
										12345			
1	14	1111	Alternating	800 & 970	2Hz (250ms-250ms)		BS Fire	6	95	•	13	101	•
2	14	1110	Sweep	800 to 970	7Hz (71s)		BS Fire	8	94	•	12	100	•
3	14	1101	Sweep	800 to 970	1Hz (11s)		BS Fire	6	95	92	12	102	95
4	14	1100	Continuous	2850	Steady		General Purpose	16	99	•	32	105	•
5	4	1101	Sweep	2400 to 2850	7Hz		General Purpose	16	103	•	32	109	•
6	4	1100	Sweep	2400 to 2850	1Hz		General Purpose	16	105	•	32	112	•
7	14	11001	Slow whoop	500 to 1200	3s sweep, 0.5 s silence, then repeat		Dutch fire (NEN 2575)	6	97	93	12	103	97
8	14	11000	Sweep (DIM)	1200 to 500	1Hz		German fire (DIN 33 404)	7	96	93	15	103	94
9	4	1011	Alternating	2400 & 2850	2Hz (250ms-250ms)		General Purpose	15	99	•	31	105	•
10	14	1010	Intermittent	970	0.5Hz (1s On/1s Off)		PFEER alert	5	95	•	8	101	•
11	14	10101	Alternating	800 & 970	1Hz (500ms-500ms)		BS Fire	6	95	•	12	101	•
12	4	10100	Intermittent	2850	0.5Hz (1s On/1s Off)		General Purpose	9	99	•	17	105	•
13	14	10011	Intermittent	970	0.8Hz (250ms On/1s Off)		General Purpose	3	94	•	5	101	•
14	14	10010	Continuous	970	Steady		PFEER toxic gas	7	95	93	14	101	95
15	14	10001	Alternating	554 & 440	100ms-400ms		French fire (NFS 32-001)	8	96	•	17	102	•
16	16	10000	Intermittent	660	3.3Hz (150ms On/150ms Off)		Swedish (Air Raid)	4	94	•	6	100	•
17	17	0111	Intermittent	660	0.28Hz (1.8s On/1.8s Off)		Swedish (Local warning)	4	95	•	7	101	•
18	18	0110	Intermittent	660	0.05Hz (13s Off / 6.5Hz On)		Swedish (Pre-mess)	3	95	•	6	101	•
19	19	0101	Continuous	660	Steady		Swedish (All clear)	5	95	•	10	101	•
20	20	0100	Alternating	554 & 440	0.5Hz (1s On/1s Off)		Swedish (Turn out)	7	96	•	16	102	•
21	21	0101	Intermittent	660	1Hz (500ms-500ms)		Swedish general purpose	4	94	•	6	101	•
22	14	01010	Intermittent	2850	4Hz (150ms On/100ms Off)		Pelican crossing	12	98	•	27	104	•
23	14	01001	Sweep	800 to 970	50Hz		BS Fire	6	93	•	12	100	•
24	4	01000	Sweep	2400 to 2850	50Hz		General Purpose	15	102	•	32	108	•
25	25	0011	Intermittent	970	3 x 500ms pulses, 1.5s silence, then repeat		ISO 8201	4	95	•	7	101	•
26	26	0010	Intermittent (I*)	800 to 970	3 x 500ms pulsed sweep, 1.5s silence, then repeat		ISO 8201	4	95	•	6	102	•
27	27	00101	Intermittent (I*)	970 & 800	3 x 500ms pulsed sweep, 1.5s silence, then repeat		ISO 8201	3	94	•	6	101	•
28	10	00100	Alternating	800 & 970	2Hz (250ms-250ms)		BS Fire	6	95	•	12	101	•
29	33	0001	Alternating	990 & 650	2Hz (250ms-250ms) (Symphoni tones)		BS Fire	10	99	93	20	105	96
30	35	00010	Alternating	510 & 610	2Hz (250ms-250ms) (Squashni Micro tones)		BS Fire	8	94	91	16	100	92
31	31	00001	Sweep	300 to 1200	1Hz		General Purpose	10	98	•	22	103	•
32	32	00000	Alternating	510 & 610	1Hz (500ms-500ms)		BS Fire	8	95	•	16	100	•

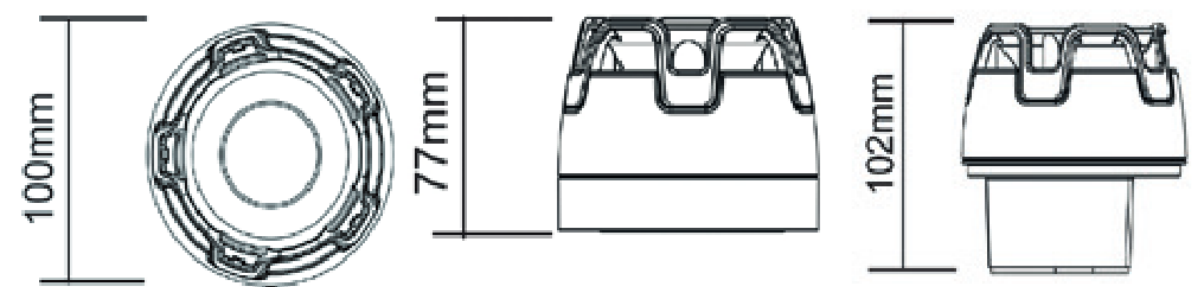
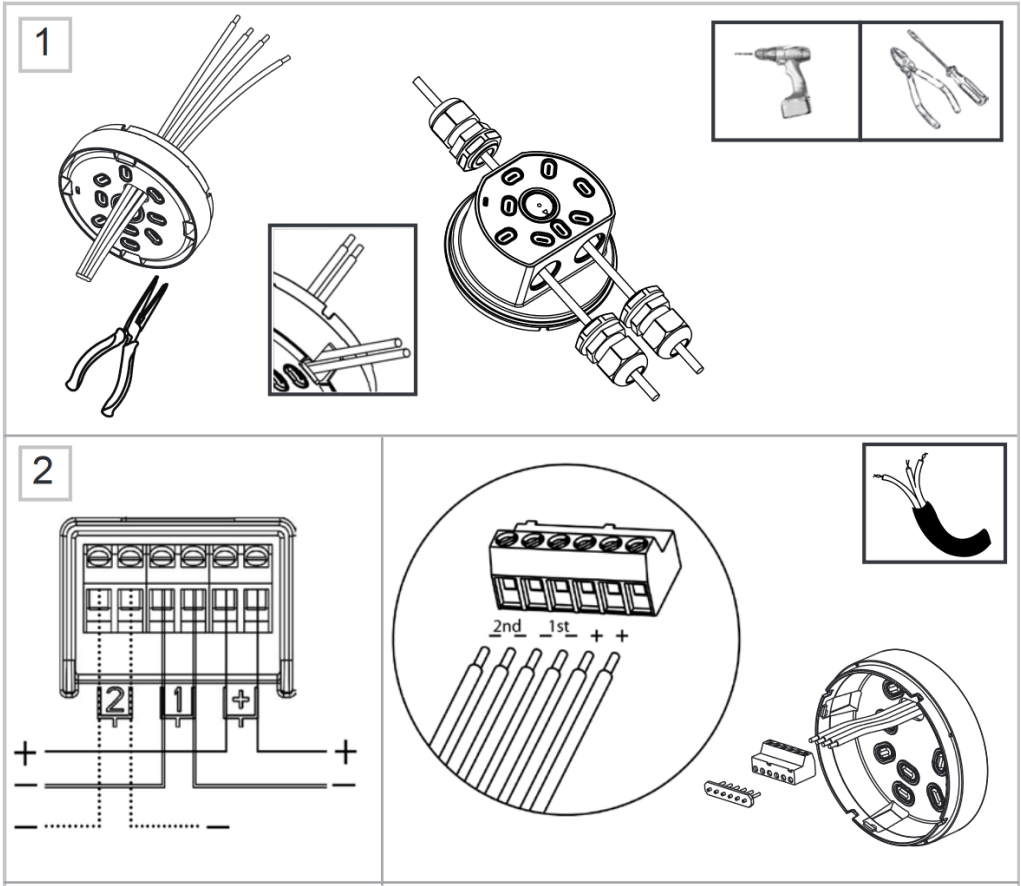
Note

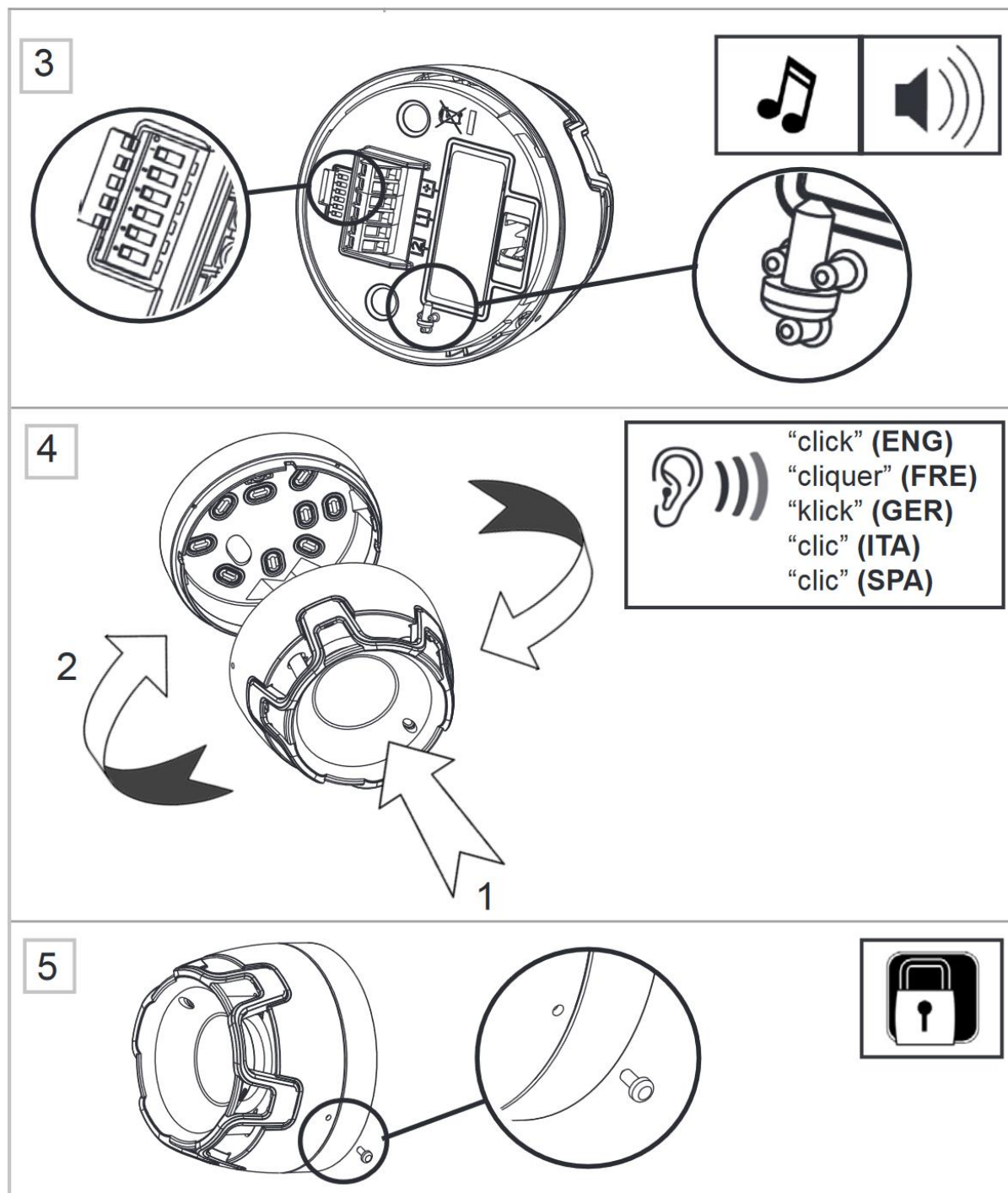
- (a): Tones approved under the Construction Products Directive for Fire Alarm Applications, are shown in the column marked EN54-3.
- (b): EN54-3 measurements shown reflect minimum expected SPL readings at Maximum Volume at the Loudest Point around the EN54-3 defined sounder axis.
- (c): All other tone measurements reflect mean manufacturers data based on 'on axis' measurements, and are not verified by a Notified body.
- (d): Detailed EN54-3 polar SPL measurements are available in this Product Manual.
- (e): All measurements taken at 20oC operating temperature.
- (f): For SPL figures at 12V DC, take 6dB of the readings for 24V DC.

9 ASR002

The BlazeCut ASR002 sounder is an affordable wall mounting sounder which is suitable for audible signalling within open areas or corridors and passages. It is able to produce 32 tones via the coding switch on the rear of the unit. Volume control adjustment is also provided.

ASR002		
	Sounder, multi tone with high base, IP65, EN54-3, voltage range 9-29 V DC, operating temperature: -25 °C +80 °C, deep base. Suitable for fixed, low vibration installations	
	Number of tones	32 includes a bell tone
	Weight	0.19 kg
	Protection	IP65
	Operation temp	- 25 °C to + 70 °C
	Current	max 31 mA @ 29 V DC (Tone 8)
	Voltage	9-28 V DC (for use on fire systems between 9-14 V DC & 18-29 V DC)
	Cable Thickness	0.5 mm² - 2.5 mm²

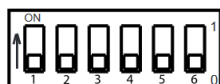




AUTOMATIC FIRE SUPPRESSION SYSTEMS



TONE TABLE



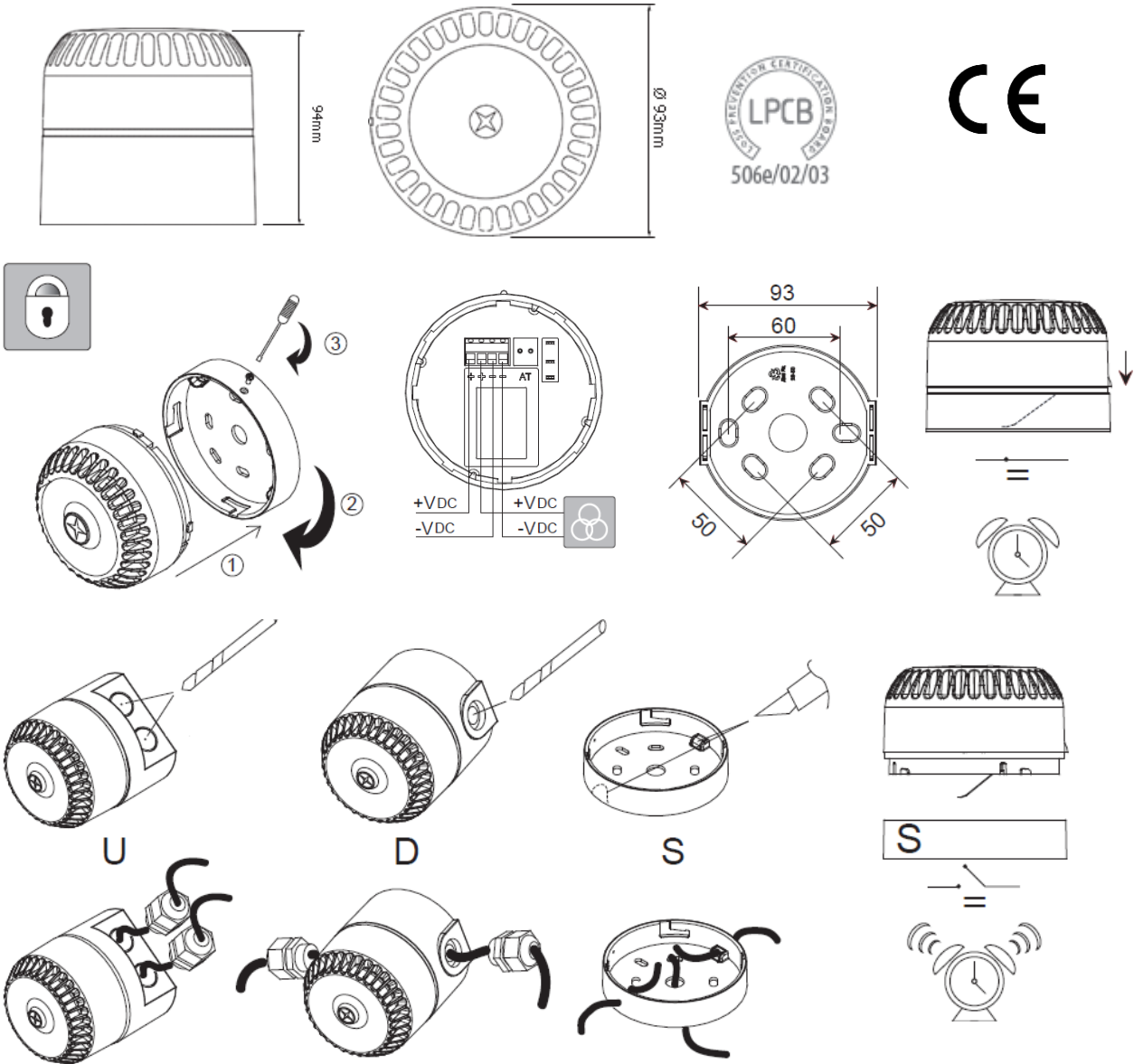
SW6	Volume Setting
ON	(ENG)HIGH/ (FRE)ÉLEVÉ/ (GER)HOCH/ (ITA)ALTO/ (SPA)ALTO
OFF	(ENG)MEDIUM/ (FRE)MOYEN/ (GER)MITTEL/ (ITA)MEDIO/ (SPA) MEDIO

000000	1		Hz	Typical consumption (mA)								Switching Hz		Standard	2		
				24V High	29V High	24V High	24V Med	12V High	14V High	12V High	12V Med						
				dB	LPCB/dB	mA	dB	mA	dB	LPCB/dB	mA	dB	mA				
0,0,0,0,0	1		554/440	99.7	105.0	26.64	96.7	7.67	94.1	97.6	11.94	90.4	3.80	2Hz (100ms/400ms)	France	NFS 32-001	7
1,0,0,0,0	2		800/970	102.2	100.2	21.54	92.9	5.73	97.0	94.1	10.97	87.0	3.25	1Hz	UK	B5S839 Pt1	8
0,1,0,0,0	3		800/970	102.5	99.8	21.61	93.1	5.75	96.2	94.5	10.01	86.2	3.00	2Hz	UK	B5S839 Pt1, FP1063.1	8
1,1,0,0,0	4		2400/2900	107.7	105.6	32.50	101.0	13.96	100.9	98.3	15.06	94.1	6.74	3Hz			10
0,0,1,0,0	5		2500/3100	107.2	105.6	35.18	100.2	15.90	100.4	99.5	16.57	93.2	7.54	2Hz			10
1,0,1,0,0	6		988/645	102.7	97.6	18.40	99.6	8.38	96.9	92.0	8.79	93.4	4.27	2Hz			8
0,1,1,0,0	7		660	103.0	97.9	17.81	99.8	10.04	97.3	92.1	8.47	93.5	5.02		Sweden		1
1,1,1,0,0	8		970	102.8	96.8	22.64	93.5	6.11	96.2	93.1	10.66	86.7	3.30			B5 5839 Pt 1	2
0,0,0,1,0	9		1200	104.5	102.0	25.93	103.5	20.62	98.2	96.8	12.06	97.0	9.73				2
1,0,0,1,0	10		2850	106.6	100.2	33.44	101.2	15.67	99.8	92.3	15.40	94.3	7.46				4
0,1,0,1,0	11		2400	106.7	104.2	34.32	99.7	14.44	99.9	98.6	16.11	92.7	7.10	Alternate between frequencies 2400Hz, 3100Hz and 988Hz			16
1,1,0,1,0	12		420	98.9	103.2	14.63	95.6	4.72	93.8	97.2	6.29	89.4	2.25	0.625s on, 0.625 sec off	NZ, Aus	AS2220	13
0,0,1,1,0	13		500-1200	103.8	107.5	30.01	103.1	20.46	98.2	100.7	13.84	97.6	10.66	0.25 sec off, 3.75 sec on	NZ, Aus	AS2220	12
1,0,1,1,0	14		660	101.3	96.6	9.31	98.4	5.70	95.8	90.2	5.05	92.1	3.07	3.33Hz 150ms on, 150ms off	Sweden		7
0,1,1,1,0	15		970	102.0	96.2	5.71	92.6	2.38	95.6	90.3	2.94	86.0	1.43	0.8Hz 0.25s on, 1s off	UK	BS 5839 Pt 1	8
1,1,1,1,0	16		970	102.4	95.9	9.87	93.4	4.14	96.1	90.9	5.51	86.6	2.54	0.5Hz 1s on, 1s off	UK	B5S839 Pt 1	8
0,0,0,1,1	17		2850	106.7	97.0	18.79	101.2	8.58	99.8	91.6	6.96	94.4	4.19	1Hz	UK	B5S839 Pt 1	10
1,0,0,1,1	18		970	102.4	96.6	11.88	93.2	3.45	96.2	89.8	5.50	86.4	1.94	1Hz 500ms on, 500ms off	UK	B5S839 Pt 1	8
0,1,0,1,1	19		950	110.4	96.9	9.04	93.6	3.36	96.2	90.5	4.21	86.8	1.79	0.22Hz 1s on, 0.5s off)*3, 1.5s off	Australia	ISO8201 Temporal 3	12
1,1,0,1,1	20		800	102.6	100.0	20.81	92.8	5.70	96.4	94.8	9.83	86.0	3.07			B5 5839 Pt 1	22
0,0,1,1,1	21		400-1200	101.7	103.6	11.97	101.1	9.38	95.6	97.3	6.12	95.1	4.26	(0.5s on, 0.5s off)*3, 1.5s off	Australia	ISO8201 Temporal 3	12
1,0,1,1,1	22		1200 - 500	102.1	105.3	33.39	101.6	25.55	96.2	98.6	14.91	95.8	11.58	0.99Hz 1s on, 0.01s off	Germany	DIN, PFEER	20
0,1,1,1,1	23		2400 - 2850	107.7	105.7	31.87	100.5	12.02	101.0	100.2	15.08	93.5	5.99	7Hz	Germany	VdS	10
1,1,1,1,1	24		500 - 1200	103.9	107.1	27.32	103.2	21.14	98.2	101.4	12.61	97.5	9.83	(0.5s off, 3.5s on)	Netherlands	NEN 2575	8
0,0,0,1,1	25		800 - 970	97.8	103.5	19.97	88.4	5.33	91.8	97.9	9.45	81.7	2.84	50Hz	UK	B5S839 Pt 1	8
1,0,0,1,1	26		800 - 970	99.0	100.6	20.22	91.4	6.30	92.9	96.3	9.68	84.7	3.38	7Hz	UK	B5S839 Pt 1	8
0,1,0,1,1	27		800 - 970	103.0	105.0	20.94	95.8	6.57	97.1	98.2	10.01	89.0	3.59	1Hz	UK, Germany	B5S839 Pt 1 VdS	8
1,1,0,1,1	28		2400 - 2850	99.1	109.2	31.93	91.4	11.48	92.4	104.1	15.01	84.5	5.79	50Hz			10
0,0,1,1,1	29		500 - 1000	100.4	102.4	23.16	90.4	4.92	94.6	97.6	10.68	83.7	2.71	7Hz			8
1,0,1,1,1	30		500-1200-500	104.3	105.1	27.94	103.5	23.06	98.1	99.1	13.60	97.2	10.78	0.166Hz rise 1s, stable 4s, fall 1s			8
0,1,1,1,1	31		800 - 1000	101.8	103.2	21.02	94.7	7.25	95.8	96.6	10.10	91.0	5.09	2Hz			8
1,1,1,1,1	32		2400 - 2850	102.2	104.1	21.28	95.3	7.39	96.1	97.7	10.24	88.5	4.04	1Hz			10

10 ABR001

The beacon has three choices of light Pulse outputs and non-standard are available in four extra colours other than the standard red. They are very simple to program and easy to mount. Being high quality they are robust in dusty and harsh environments.

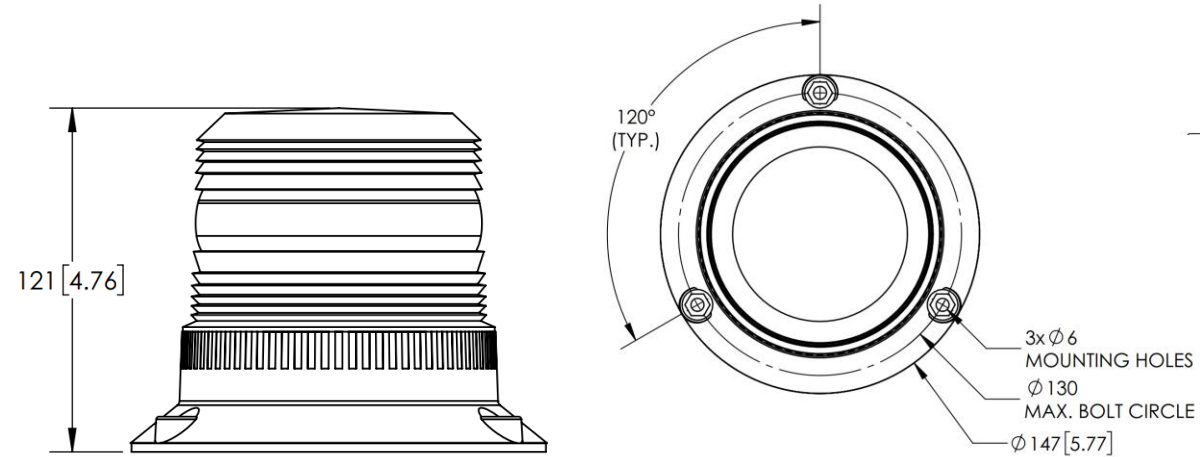
ABR001	
Beacon Red, IP65, CE, VdS(G207018)	
Monitoring	Reverse polarity
Weight	0.18 kg
Protection	IP65
Operation temp	- 25°C to + 70°C
Current	85 mA @ 12V - 25 mA @ 24V - 25 mA @ 48V
Voltage	9 V – 60 V
Options	3 light outputs; amber, blue, green and clear lens and white body can be requested
Light output	2.5 cd 1 Hz
Cable Thickness	0.28 mm ² - 2.5 mm ²



11 ABR002

The beacon utilises 9 powerful LEDs, arranged to produce a 360° flash pattern by using solid-state, maintenance free long-life nature LED technology. This high-performance range has improved EMC, is robust and compact in a popular housing design and is available in four standard mounting options. ABR002 beacon is suitable for a variety of vehicle and outdoor applications.

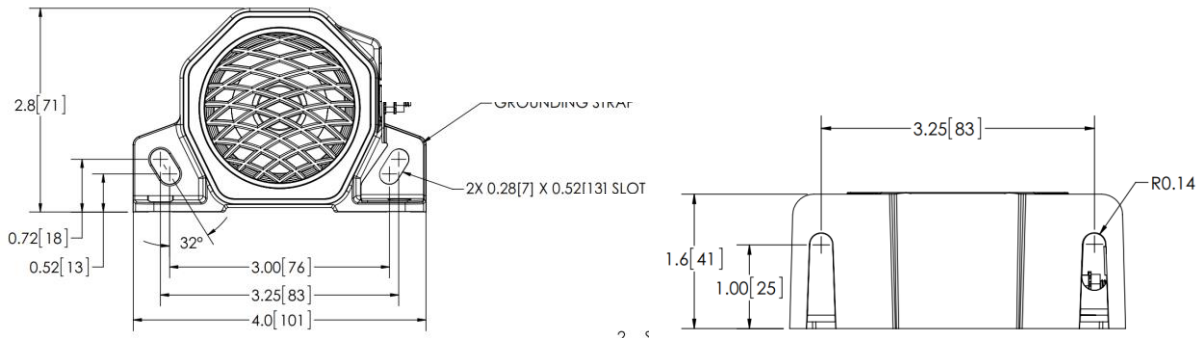
ABR002		
	Beacon Red, IP65, CE, R10	
	Monitoring	Reverse polarity
	Weight	0.23 kg
	Protection	IP65
	Operation temp	- 20°C to + 50°C
	Current	1.06 A @ 12 V
	Voltage	12 V – 24 V
	Mounting	3x Ø6 holes
	Light output	360°, 135 flashes per minute
	Cable connection	18 AWG wires, approx. 350 mm



12 ASB001

Compact sounder for warning with SAE certifications. A glass filled nylon housing with epoxy-encapsulated electronics provide exceptional durability and protection against moisture, dust and vibrations. Suitable for a variety of vehicle and outdoor applications.

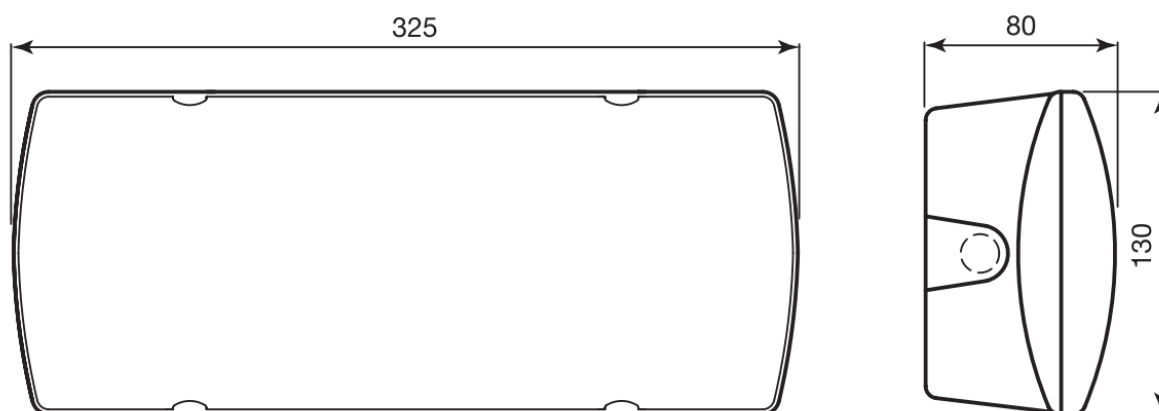
ASB001		
	Sounder, CE, SAE TYPE C, R10, UL, AMECA	
	Weight	0.38 kg
	Protection	IP65
	Operation temp	- 40°C to + 85°C
	Current	0.2 A @ 12 V
	Voltage	12 V – 24 V
	Mounting	horizontal and vertical
	Sound output	97 dB(A)
Cable connection		2 wires, approx. 350 mm



13 ASB8666

Optical/acoustic sign board for outdoor use, suitable for all types of risk conditions such as fire, flooding, gas leaks, etc., whenever visual and acoustic information are needed. The IP 65 Protection rating allows use in indoor and outdoor environments including damp, dusty settings. ASB8666 is available with a high visibility LED lighting system and high sound pressure buzzers.

ASB8666		
	Sign Board, IP65, CE	
	Monitoring	Reverse polarity
	Weight	0.70 kg
	Protection	IP65
	Operation temp	- 10°C to + 50°C
	Current	66 mA @ 12 V
	Voltage	10.8 V – 28 V DC
	Light output	High brightness LED, steady light or 60 per min.
	Sound output	100 dB, 3200 Hz
	Type of connection	terminals



14 AWB012 AND AWB024

The through panel mount warning buzzer with red LED dots, 12 V or 24 V DC, 80 dB (@1m), IP50, -20 to +50 °C, stainless steel, 29 mm diameter, M22x1 (23 mm hole for flush mount). Suitable for fixed and mobile installations. Includes ALA019 label.

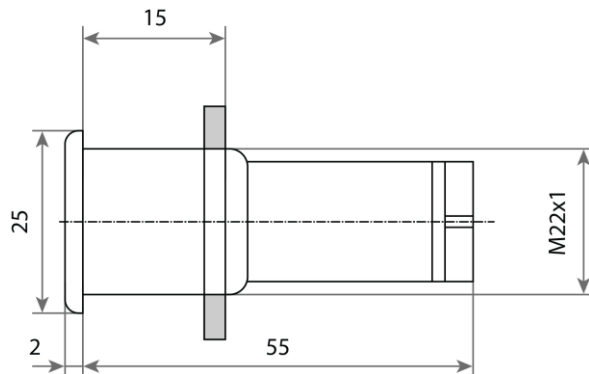
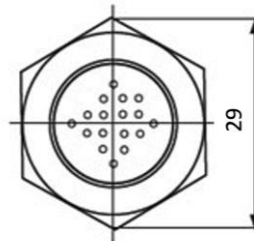
AWB012 and AWB024		
	Warning buzzer	
	Body material	Stainless steel
	Contact material	Plated
	LED Style	8 red flashing
	Terminal type	2 screws for buzzer and LED, side entry
	Panel thickness	1~10 mm
	Operating temperature	-20°C to +50°C
	Power Supply	AWB012 – 12 V, AWB024 – 24 V
	Insulation resistance	≥ 1000 MΩ
	Max switching rating	5 A
	Degree of protection	IP50
	Buzzer sound intensity	>80 dB (@1 m)
	Suitability	fixed or mobile equipment applications



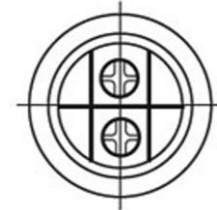
AWB012 or AWB024



ALA019



+ / - not polarity sensitive



All dimensions in mm

