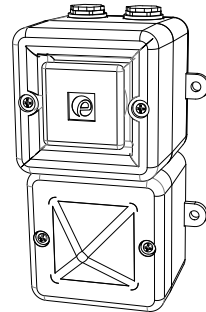


INSTRUCTION & SERVICE MANUAL

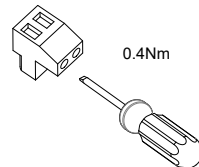
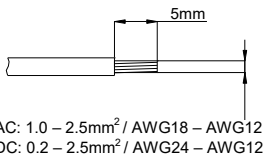
AL100X AlertAlight Combined Sounder Xenon Beacons

- -40°C to +66C (-40°F to 151°F)
- Type 3R / 13 (IP66, Independently tested to EN60529:1991)
- 0.46Kg (1.01lb)
- CE, UKCA, DNV, MED, MER, AL100XDC024 CPR compliant
- All units UL Listed.



| Unit Type Code | Nominal Voltage | Voltage Range | Nominal Sounder Current* | Nominal Beacon Current* | Nominal SPL | Max SPL | Average SPL |
|----------------|-----------------|--------------------------|--------------------------|-------------------------|----------------------------|-------------------------|--------------------------|
| AL100XDC012 | 12 V dc | 11.5-14V dc | 17mA | 500mA | 101.6dB(A) Tone 44 @ 1m | 110dB(A) Tone 4 @ 1m | 102.3dB(A) All tones @1m |
| AL100XDC024 | 24V dc | 20-28V dc | 33.5mA | 250mA | | | |
| AL100XDC048 | 48V dc | 42-52V dc | 113mA | 170mA | | | |
| AL100XAC024 | 24V ac | 24-28V ac 50/60Hz | 42.5mA | 300mA | | | |
| AL100XAC048 | 48V ac | 48V ac ± 10% 50/60Hz | 42.5mA | 250mA | | | |
| AL100XAC115 | 115V ac | 115V ac ± 10% 50/60Hz | 25mA | 70mA | | | |
| AL100XAC230 | 230V ac | 230V ac ± 10% 50/60Hz | 17mA | 35mA | | | |

*Nominal current at nominal voltage, Tone 12 / 1Hz Flash Pattern



Attention: Installation must be carried out by an electrician in compliance with the latest codes and regulations.

Attention: L'installation doit être effectuée par un électricien conformément aux derniers codes et réglementations.

Achtung: Die Installation muss von einem Elektriker gemäß den neuesten Vorschriften und Bestimmungen durchgeführt werden.

Attenzione: L'installazione deve essere eseguita da un elettricista in conformità con i codici e le normative più recenti.

Atención: La instalación debe ser realizada por un electricista de acuerdo con los últimos códigos y regulaciones.

Atenção: A instalação deve ser realizada por um electricista de acordo com os códigos e regulamentos mais recentes.

Внимание: установка должна выполняться электриком в соответствии с последними нормами и правилами.

Attention: Disconnect from power source before installation or service to prevent electric shock

Attention: Débranchez-le de la source d'alimentation avant l'installation ou l'entretien pour éviter tout choc électrique.

Achtung: Vor Installation oder Wartung von der Stromquelle trennen, um einen Stromschlag zu vermeiden.

Attenzione: scollegare dall'alimentazione prima dell'installazione o dell'assistenza per evitare scosse elettriche.

Atención: desconéctelo de la fuente de alimentación antes de la instalación o el servicio para evitar descargas eléctricas.

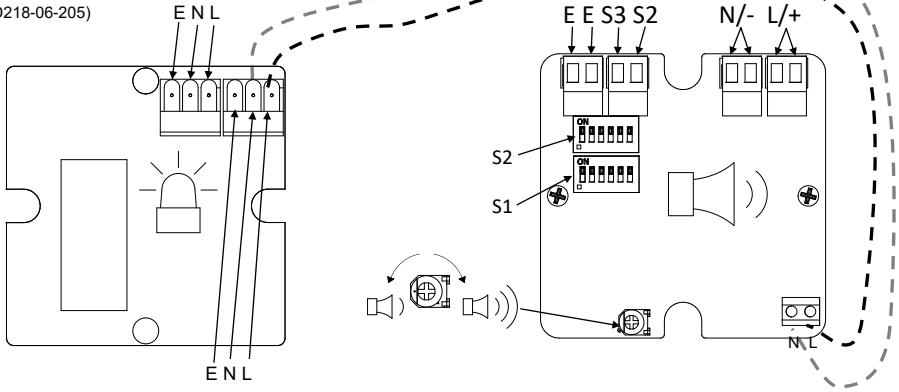
Atenção: Desconecte da fonte de alimentação antes da instalação ou serviço para evitar choque elétrico

Внимание: отключите от источника питания перед установкой или обслуживанием, чтобы предотвратить поражение электрическим током.



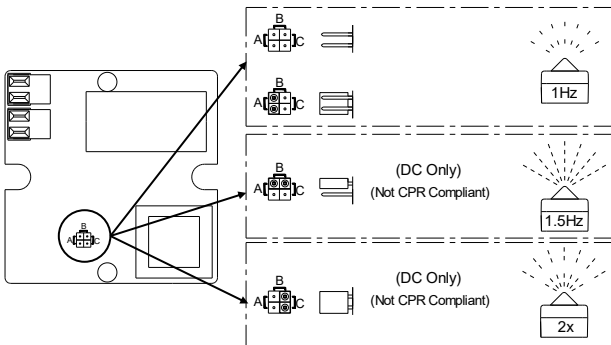
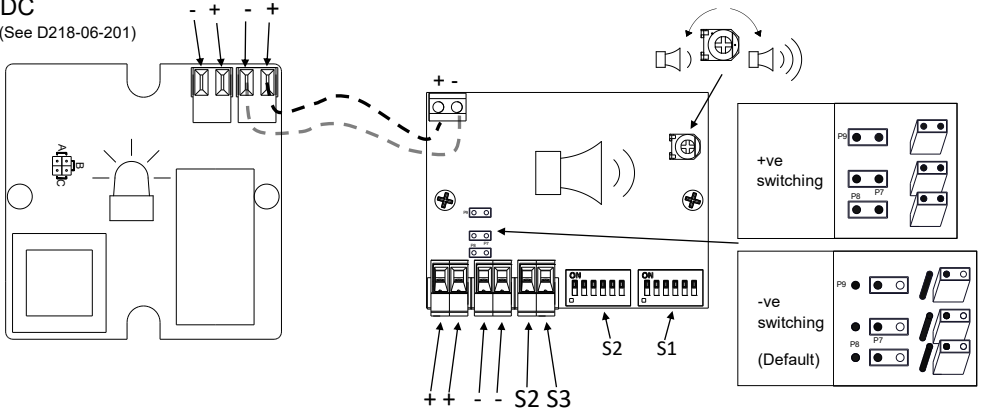
AC

(See D218-06-205)



DC

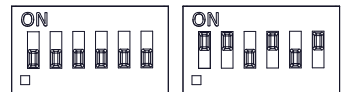
(See D218-06-201)



AC & DC (-ve switching), See D221-95-001

DC (+ve switching) see D218-95-001

Default = S2 - Tone 1 Default = S1 - Tone 44



(ON = 1, OFF = 0)

INSTRUCTION & SERVICE MANUAL

AL100X AlertAlight Combined Sounder Xenon Beacons

| AC Units | | | |
|---|---|------------------------------|---|
| Stage | Alarm tone selection See above Tone table D221-95-001-IS | Wiring Schematic Config. No. | Method of operation as shown in wiring diagram D218-06-205 |
| Stage 1 | Use Switch 1 to select Stage 1 alarm tone | 1a/2a | Connect Stage 1 Live to terminal 'L/+' and Stage 1 Neutral to terminal 'N/-' |
| Stage 2 | Use Switch 2 to select Stage 2 alarm tone | 1b/2b | Connect Stage 1 Live to terminal 'L/+' and Stage 1 Neutral to terminal 'N/-' & connect terminal 'S2' to Stage 1 Live |
| Stage 3 | Pre-determined by Stage 1 selection - see Tone table D221-95-001-IS | 1b/2b | Connect Stage 1 Live to terminal 'L/+' and Stage 1 Neutral to terminal 'N/-' & connect terminal 'S3' to Stage 1 Live |
| Stage 4 | Pre-determined by Stage 1 selection - see Tone table D221-95-001-IS | 1b/2b | Connect Stage 1 Live to terminal 'L/+' and Stage 1 Neutral to terminal 'N/-' & connect both terminals 'S2' & 'S3' to Stage 1 Live |
| DC Units | | | |
| Stage | Alarm tone selection See above | Wiring Schematic Config. No. | Method of operation as shown in wiring diagram D218-06-201 |
| Common positive (negative switching) mode (Default) Tone table D221-95-001-IS | | | |
| Stage 1 | Use Switch 1 to select Stage 1 alarm tone | 1a/5a | Apply +ve to terminal '+' & -ve to terminal '-' |
| Stage 2 | Use Switch 2 to select Stage 2 alarm tone | 1b/5b | Apply +ve to terminal '+' & -ve to terminal '-' and also link terminal S2 to terminal '-' |
| Stage 3 | Pre-determined by Stage 1 selection - see Tone table D221-95-001-IS | 1c/5c | Apply +ve to terminal '+' & -ve to terminal '-' and also link terminal S3 to terminal '-' |
| Stage 4 | Pre-determined by Stage 1 selection - see Tone table D221-95-001-IS | 1c/5c | Apply +ve to terminal '+' & -ve to terminal '-' and also link S2 and S3 to terminal '-' |
| Common negative (positive switching) mode - Tone table D218-95-001-IS | | | |
| Stage 1 | Use Switch 1 to select Stage 1 alarm tone | 2a/6a | Apply +ve to terminal S2 & -ve to terminal '-' |
| Stage 2 | Use Switch 2 to select Stage 2 alarm tone | 2b/6b | Apply +ve to terminal S3 & -ve to terminal '-' |
| Stage 3 | Pre-determined by Stage 1 selection - see Tone table D218-95-001-IS | 2c/6c | Apply +ve to terminal '+' & -ve to terminal '-' |

SIL 2 Reliability Data

Reliability and Functional safety IEC/EN61508 which has been assessed and is considered suitable for use in low demand safety function: The beacon and sounder units must be powered and monitored separately to be complaint.

1. Random Hardware Failures and Systematic Failures and (route 2_u).

2. As an unvoted item (i.e. hardware fault tolerance of 0) at SIL 2.

The product was assessed against failure modes:

- Failure to sound or annunciate (Sounder)
- Failure to respond to an input by illuminating (Beacon)

3. When employing the device in a SIL2 compliant system the user should ensure frequent or continuous automatic monitoring of continuity and current draw, refer to specific model nominal current draw data.

| Component of Combined unit | Sounder | Beacon |
|---|----------------------|----------------------|
| Integrity in respect of failure to function | SIL2 & SIL1 | SIL2 & SIL1 |
| Total Failure rate | 0.3 pmh | 0.12 pmh |
| "Hazardous" failure rate (revealed) | 0 pmh | 0 pmh |
| "Hazardous" failure rate (unrevealed) | 0.3 pmh | 0.12 pmh |
| "Safe" failure rate (revealed) | 0 pmh | 0 pmh |
| "Safe" failure rate (unrevealed) | 0 pmh | 0 pmh |
| System type | B | B |
| Hardware Fault Tolerance | 0 | 0 |
| Diagnostic Coverage | >80% | >60% |
| PFd (hazardous failure) | 1.3×10^{-3} | 5.3×10^{-4} |
| Proof Test Interval | Up to 1 year | Up to 1 year |

The units have been tested and approved to DNVGL-CG-0339 & EN54-3:2014 incl. A1:2019 for the installation on ships in the following locations:

| | |
|--------------|--|
| Temperature: | A, B, C & D (Machinery spaces, control rooms, accommodation, bridge, inside cubicles, desks, etc..., pump rooms, holds, rooms with no heating, Open deck, masts) |
| Humidity: | A & B (All locations) |
| Vibration: | A (Bulkheads, Beams, Deck, Bridge) |
| EMC: | A (All locations except Bridge & open deck) |
| Enclosure: | A, B & C, IP66 (Control rooms, accommodation, bridge, engine room, open deck masts, below floor plates in engine room) |

The units comply with Solas 74 Chapter II-2, Regulation 7 & Chapter X, Regulation 3 for installation on ships in the following locations:

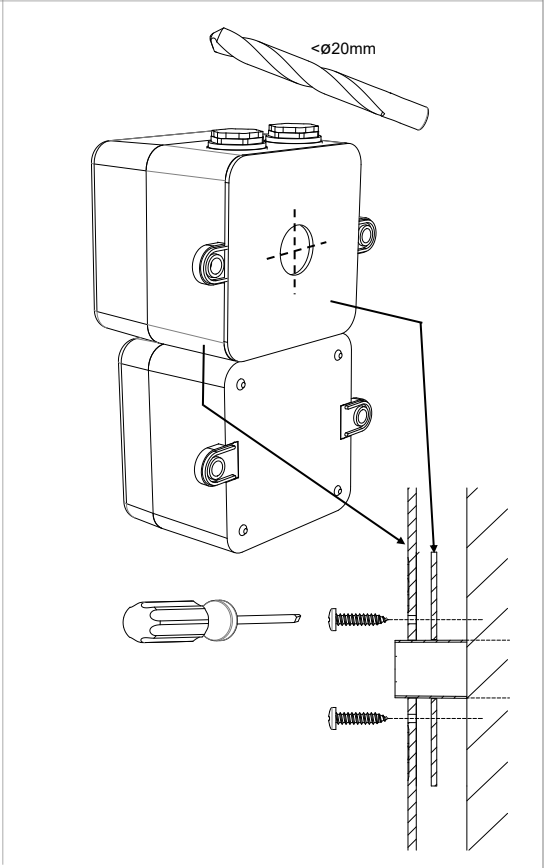
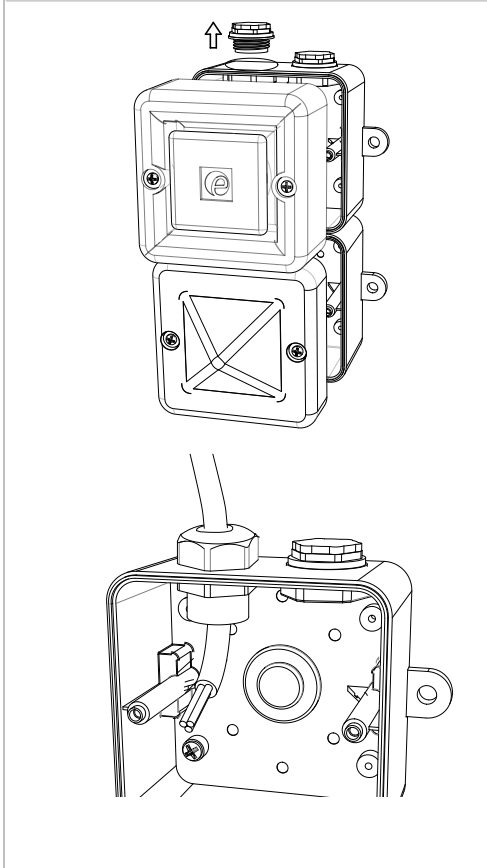
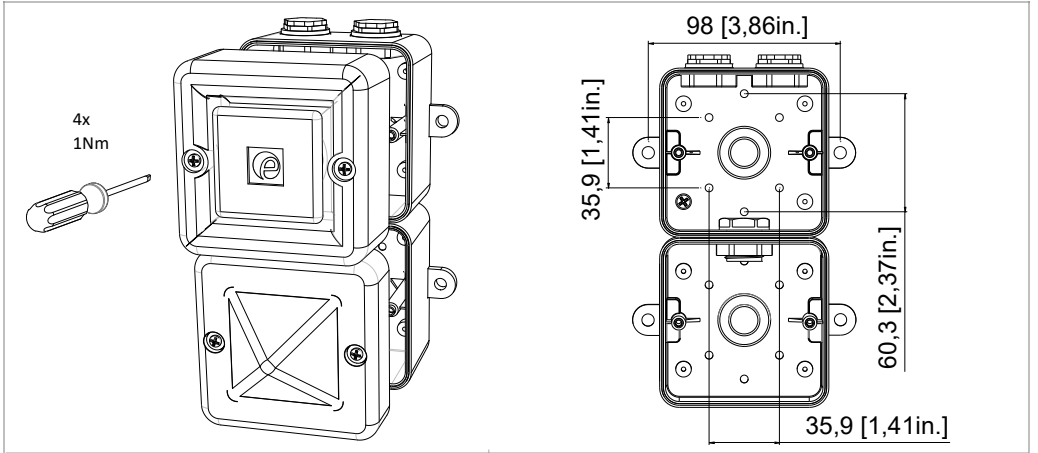
| | |
|--------------|-------------------------------------|
| Temperature: | D (Location -25° to +70°C) |
| Vibration: | A (General Applications) |
| EMC: | A (General Power Distribution Zone) |
| Enclosure: | IP66, Salt mist |



0575/2024



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INSTRUCTION & SERVICE MANUAL

AL100X AlertAlight Combined Sounder Xenon Beacons

Construction Product Regulation

- AL100XDC024 & AL100XDC048 are compliant to EN54-3:2001+A1+A2 & EN54-23:2010
- VAD for use in fire detection and fire alarm systems installed in and around buildings
- Alarm devices – Sounder & Beacon
- Type 3R / 13, IP66, Independently tested to EN60529:1991, (IP33C Compliant to EN54-3)
- Type B Product, For Indoor & Outdoor use
- Observe Precautions for handling electrostatic devices
- -25°C to +55°C compliant to EN54-3 & EN54-23
- Cable Glands must be suitably sealed and meet minimum IP33 for EN54-3 applications
- Storage Temperature: -40°C to +70°C
- Maintenance – None
- Units can be mounted using the 2 of the 4-off ø6mm holes or through the back of the housing using the supplied gasket

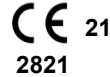
Order Code: AL100XDC024
 Voltage Range: 20-28Vdc
 Nominal Voltage: 24Vdc
 Max Sounder Current: P1: 125mA @ 28Vdc
 Max Beacon Current: 271mA @ 20Vdc

Order Code: AL100XDC048
 Voltage Range: 42-52Vdc
 Nominal Voltage: 48Vdc
 Max Sounder Current: 125mA @ 52Vdc
 Max Beacon Current: 160mA @ 42Vdc

DOP: DP-2821-CPR-0109
 UKCA Cert: 0843-CPR-1007
 EU Cert: 2821-CPR-0109

Approved Tones for EN54-3 Applications:

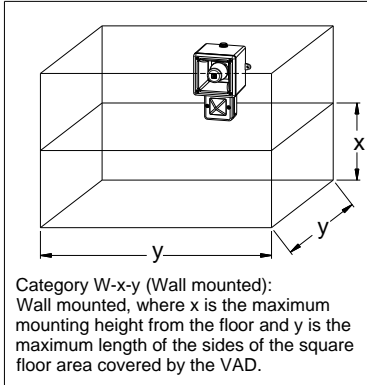
- (Alternating Tone) 800/1000Hz @ 2Hz Alternating Tone 44
- (Rising Tone) 500/1200Hz @ 0.26Hz (3.3s on, 0.5s off) Tone 8
- (Fainting Tone) 1200/500Hz @ 1Hz Tone 2
- (Continuous Tone) 800Hz Tone 21
- (Pulsed Tone) 660Hz (150mS on, 150mS off) Tone 31
- (Alternating Tone) 544Hz(100mS)/440Hz (400mS) Tone 5



AL100XDC024 / AL100XDC048 @ 1m

| Angle | Horizontal Sound Output Max Voltage (60 Vdc) LAFmax,T dB(A) | | | | | | Horizontal Sound Output Min Voltage (18 Vdc) LAFmax,T dB(A) | | | | | |
|-------|--|--------|--------|---------|---------|--------|--|--------|--------|---------|---------|--------|
| | Tone 44 | Tone 8 | Tone 2 | Tone 21 | Tone 31 | Tone 5 | Tone 44 | Tone 8 | Tone 2 | Tone 21 | Tone 31 | Tone 5 |
| 15° | 98 | 99.9 | 99 | 95.7 | 94.8 | 95.4 | 94.7 | 96.8 | 95.9 | 93 | 91.9 | 92.7 |
| 45° | 97.8 | 100.1 | 99 | 97.6 | 94.7 | 96.6 | 95 | 97 | 96 | 94.8 | 92.1 | 94 |
| 75° | 101.5 | 102.9 | 102.4 | 101.4 | 98.3 | 100.4 | 98.7 | 100.2 | 99.5 | 98.8 | 94.9 | 97.9 |
| 105° | 101.4 | 102.8 | 102.5 | 101.4 | 98.1 | 100.4 | 98.6 | 100.2 | 99.5 | 98.8 | 94.9 | 97.9 |
| 135° | 97.4 | 100 | 98.9 | 97.2 | 94.9 | 96.4 | 94.6 | 96.9 | 95.9 | 94.5 | 92.2 | 93.8 |
| 165° | 97.5 | 99.6 | 98.9 | 95.8 | 94.7 | 95.4 | 94.3 | 96.4 | 95.8 | 93 | 91.8 | 92.8 |
| Angle | Vertical Sound Output Max Voltage (60 Vdc) LAFmax,T dB(A) | | | | | | Vertical Sound Output Min Voltage (18 Vdc) LAFmax,T dB(A) | | | | | |
| | Tone 44 | Tone 8 | Tone 2 | Tone 21 | Tone 31 | Tone 5 | Tone 44 | Tone 8 | Tone 2 | Tone 21 | Tone 31 | Tone 5 |
| 15° | 96.3 | 99.8 | 99 | 95.5 | 94.1 | 95.3 | 93.1 | 96.7 | 96 | 92.8 | 91.2 | 92.6 |
| 45° | 97.6 | 99.9 | 98.8 | 97.4 | 94.5 | 96.3 | 94.8 | 96.8 | 95.7 | 94.6 | 91.9 | 93.8 |
| 75° | 101.3 | 103 | 102.5 | 101.4 | 98.1 | 100.5 | 98.5 | 100.1 | 99.5 | 98.7 | 95 | 97.8 |
| 105° | 101.3 | 102.8 | 102.4 | 101.3 | 98.2 | 100.5 | 98.5 | 100.1 | 99.5 | 98.7 | 95 | 97.7 |
| 135° | 97.4 | 99.9 | 98.8 | 97.6 | 94.5 | 96.3 | 94.6 | 96.8 | 95.8 | 94.8 | 91.9 | 93.7 |
| 165° | 96.7 | 100 | 99 | 95.5 | 93.9 | 95.4 | 93.6 | 96.9 | 96 | 92.7 | 91.1 | 92.7 |

AL100XDC024 & AL100XDC48 LIGHT OUTPUT



Note: CPR approved units must be positioned sounder on top, beacon below.

Coverage Area According to EN54-23
(Only units in the following table are VdS Approved)

| Unit | Category W | Power |
|-------------|------------|-------|
| AL100XDC024 | W-2.4-4.8 | 11W |
| | V=55.3m | |
| AL100XDC048 | W-2.5-5 | 14W |
| | V=62.5m | |

Approved Beacon for EN54-23 Applications:
Clear lenses are compliant with EN54-23

- All models are approved for use as Audible Signal and Visual Appliance for use as General Signaling: UL464A & CSA C22.2 No 205-17
- Type 4 / 4X / 3R / 13, IP66 independently tested to EN60529:1991
- 40°C to +66°C / -40°C to +151°F

General Signaling Canada:

AL100XDC: -40°C to +55°C / -40°F to +131°F
AL100XAC: -40°C to +40°C / -40°F to +104°F

- To maintain Ingress Protection, cable entries must be fitted with suitably rated cable glands or stopping plugs
- Mounting - Units can be mounted using 2 of the 4-off ø6mm holes in the mounting lugs or through the back of the housing using the supplied gasket.
- EOL Monitoring (DC Only): End of Line Devices may be fitted between the +ve & -ve terminals of the PCBA. Please ensure that the device legs meet the wire size range stated for the connection terminals and are fitted correctly in order to avoid a short. Refer to the compatible control panel specification for EOL device values and ratings. Note: For forward voltage polarity line monitoring the maximum voltage is 4Vdc. For monitoring voltage, the installer should allow for system cabling and voltage drops



| Model | Nominal Voltage | Voltage Range | Nominal Operating Current* | | Max Operating RMS [#] | |
|-------------|-----------------|------------------------|----------------------------|---------|--------------------------------|---------|
| | | | Beacon | Sounder | Beacon | Sounder |
| AL100XDC012 | 12V dc | 11.5-14Vdc | 500mA | 17mA | 531mA | 125mA |
| AL100XDC024 | 24V dc | 20-28Vdc | 250mA | 33.5mA | 271mA | |
| AL100XDC048 | 48V dc | 42-54Vdc | 170mA | 113mA | 170mA | |
| AL100XAC024 | 24V ac | 24-28Vac 50/60Hz | 300mA | 42.5mA | 426mA | 42.5mA |
| AL100XAC048 | 48V ac | 42-54Vac 50/60Hz | 250mA | 42mA | 360mA | |
| AL100XAC115 | 115 Vac | 103.5-126.5Vac 50/60Hz | 70mA | 25mA | 101mA | |
| AL100XAC230 | 230 Vac | 207-253Vac 50/60Hz | 35mA | 17mA | 58mA | |

*Nominal Voltage, 1Hz Flash Pattern & Tone 12; #Worst-case input voltage and worst case flash pattern



Attention: Installation must be carried out by an electrician in compliance with the National Electrical Code, NFPA 70 or CSA 22.1 Canadian Electrical Code, Part I, Safety Standard for Electrical Installations, Section 32. / L'installation doit exclusivement être réalisée par du personnel qualifié, conformément au code national d'électricité américain, NFPA 70 ou CSA 22.1 Code canadien de l'électricité, première partie, norme de sécurité relative aux installations électriques, Section 32

FIRE INSTRUCTION & SERVICE MANUAL

AL100X Range Alert/Aight Combined Sounder Xenon Beacons

UL464 / CAN/ULC-S525 & UL1638 / CAN/ULC-S526

Model: AL100XDC



Attention: Installation must be carried out by an electrician in compliance with the National Electrical Code, NFPA 70, and the National Fire Alarm Signaling Code, NFPA 72 or CSA 22.1 Canadian Electrical Code, Part I, Safety Standard for Electrical Installations, Section 32. / L'installation doit exclusivement être réalisée par du personnel qualifié, conformément au code national d'électricité américain, NFPA 70, et le code national d'alarme incendie et de signalisation NFPA 72 ou CSA 22.1 Code canadien de l'électricité, première partie, norme de sécurité relative aux installations électriques, Section 32



Attention: Disconnect from power source before installation or service to prevent electric shock / Débranchez-le de la source d'alimentation avant l'installation ou l'entretien pour éviter tout choc électrique.



Attention: Do not paint / Ne pas Peinturer

- -40°C to +66°C / -40°F to +151°F
- Units can be mounted using the 2-off ø6mm holes in the mounting lugs or through the back of the housing using the supplied gasket seal.
- AL100XDC024 is approved for use as an Audible & Visual signal appliance for fire alarm use – Private Mode & Emergency Warning. (UL464 & CAN/ULC-S525 & UL1638 & CAN/ULC-S526).
- AL100XDC024 produces a minimum sound pressure level of US: 79.55dB(A); CA: 85.2dB(A) at 10 feet (figures @ worst case 10Vdc).
- AL100XDC024 produces a minimum sound pressure level of US: 88.52dB(A); CA: 93.7dB(A) at 10 feet (@24Vdc)
- For Fire Alarm applications, the Sounder Volume must be at the highest setting, (see volume control section). For fire alarm use, Tone 12 as shown below must be selected:

| Stage 1 Set DIP SW 1 Tone No. | Tone Description | Tone Visual | Stage 1 & 2 DIP SW 1/2 Settings 1 2 3 4 5 6 | Stage 3 Set DIP SW 1 (S3) | Stage 4 Set DIP SW 1 (S2 + S3) |
|-------------------------------|--|-------------|---|---------------------------|--------------------------------|
| 12 | 1000Hz(0.5s on, 0.5s off)x3 + 1s gap ISO 8201 Temporal Pattern | | 1 1 0 1 0 0 | 1 | 8 |

- For private mode fire alarm and Emergency Warning use, the beacons must be set to the certified flash patterns of 1Hz.
- For light output ratings see below:

On-axis light output rating per UL1638 & Emergency Warning

| Model | Lens Colour | UL1638 Intensity (cd) at 1Hz flash rate | Emergency Warning Intensity (cd) at 1Hz |
|-------------|-------------|---|---|
| AL100XDC024 | Clear | 86.5 | 69.2 |
| | Amber | 38.12 | 30.5 |
| | Blue | 11.75 | - |
| | Green | 32.62 | 26.1 |
| | Magenta | 11.75 | - |
| | Red | 8.62 | - |
| | Yellow | 77.0 | 61.6 |

- Connection Terminals: Pluggable
AC: 1.0 - 2.5mm² / AWG18 - AWG12
DC: 0.2 - 2.5mm² / AWG24 - AWG12
- Terminal Tightening torque 0.4Nm
- To maintain Ingress Protection, cable entries must be fitted with suitably rated cable glands or stopping plugs
- Units can be located indoor or outdoor wet use, wall or ceiling mounted and there are no limitations on orientation
- Factory finishes are not intended to be modified

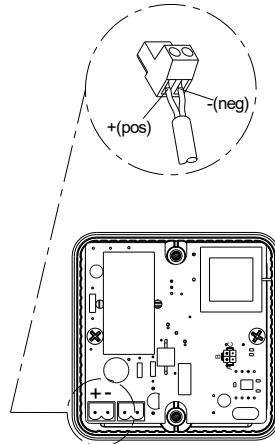
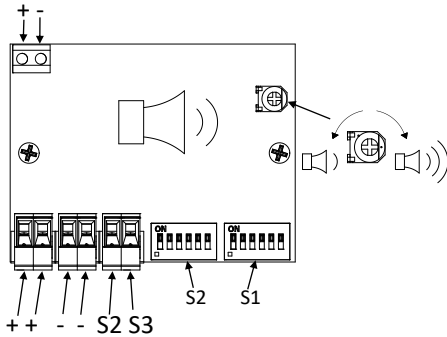
Surge current ratings for use in fire alarm systems

| Model | Nominal Voltage | Voltage Range | Flash Rate | Initial Peak (mA) | | Initial RMS (mA) | |
|-------------|-----------------|---------------|------------|-------------------|---------|------------------|---------|
| | | | | Beacon | Sounder | Beacon | Sounder |
| AL100XDC024 | 24Vdc | 20 to 28Vdc | 1Hz | 271 | 298 | 250 | 56.4 |

AL100XDC024 Sounder Directional Characteristics for Canadian Fire CAN/ULC-S525 at 10 feet

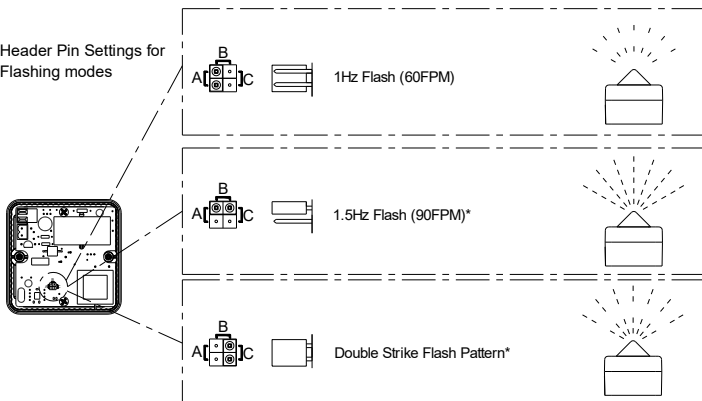
| Horizontal Axis | | | | Vertical Axis | | | |
|-----------------|------------|----------|------------|---------------|------------|----------|------------|
| Angle | OSPL | Angle | OSPL | Angle | OSPL | Angle | OSPL |
| Ref. 90° | 92.6 dB(A) | Ref. 90° | 92.6 dB(A) | Ref. 90° | 93 dB(A) | Ref. 90° | 93 dB(A) |
| 149° | -3 dB(A) | 32° | -3 dB(A) | 148° | -3 dB(A) | 33° | -3 dB(A) |
| 153° | -6 dB(A) | 28° | -6 dB(A) | 151.5° | -6 dB(A) | 29° | -6 dB(A) |
| 180° | 87.2 dB(A) | 0° | 87 dB(A) | 180° | 87.2 dB(A) | 0° | 86.4 dB(A) |

AL100XDC024 Sounder PCBA



AL100XDC024 Beacon PCBA
20-28 VDC

Header Pin Settings for Flashing modes



*Flash Modes not tested to UL1638 / CAN/ULC-S526

| Stage 1 Set DIP SW 1 Tone No. | Tone Description | Tone Visual | Stage 1 & 2 DIP SW 1/2 Settings 1 2 3 4 5 6 | Stage 3 Set DIP SW 1 (S3) | Stage 4 Set DIP SW 1 (S2 + S3) |
|-------------------------------|--|-------------|---|---------------------------|--------------------------------|
| 1 | 1000Hz PFEER Toxic Gas | | 0 0 0 0 0 | 2 | 44 |
| 2 | 1200/500Hz @ 1Hz DIN /PFEER P.T.A.P. | | 1 0 0 0 0 | 3 | 44 |
| 3 | 1000Hz @ 0.5Hz(1s on, 1soff) PFEER Gen. Alarm | | 0 1 0 0 0 0 | 2 | 44 |
| 4 | 1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s NF C 48-265 | | 1 1 0 0 0 0 | 24 | 1 |
| 5 | 544Hz(100mS)/440Hz (400mS) NF S 32-001 | | 0 0 1 0 0 0 | 19 | 1 |
| 6 | 1500/500Hz - (0.5s on , 0.5s off) x3 + 1s gap AS4428 | | 1 0 1 0 0 0 | 44 | 1 |
| 7 | 500-1500Hz Sweeping 2 sec on 1 sec off AS4428 | | 0 1 1 0 0 0 | 44 | 1 |
| 8 | 500/1200Hz @ 0.26Hz (3.3son, 0.5s off) Netherlands - NEN 2575 | | 1 1 1 0 0 0 | 24 | 35 |
| 9 | 1000Hz (1s on, 1s off)x7 + (7s on, 1s off) IMO Code 1a | | 0 0 0 1 0 0 | 34 | 1 |
| 10 | 1000Hz (1s on, 1s off)x7 + (7s on, 1s off) IMO Code 1a | | 1 0 0 1 0 0 | 34 | 1 |
| 11 | 420Hz(0.5s on, 0.5s off)x3 + 1s gap ISO 8201 Temporal Pattern | | 0 1 0 1 0 0 | 1 | 8 |
| 12 | 1000Hz(0.5s on, 0.5s off)x3 + 1s gap ISO 8201 Temporal Pattern | | 1 1 0 1 0 0 | 1 | 8 |
| 13 | 422/775Hz - (0.85 on, 0.5 off) x3 + 1s gap NFPA - Temporal Coded | | 0 0 1 1 0 0 | 1 | 8 |
| 14 | 1000/2000Hz @ 1Hz Singapore | | 1 0 1 1 0 0 | 3 | 35 |
| 15 | 300Hz Continuous (f=300) | | 0 1 1 1 0 0 | 24 | 35 |
| 16 | 440Hz Continuous (f=440) | | 1 1 1 1 0 0 | 24 | 35 |
| 17 | 470Hz Continuous (f=470) | | 0 0 0 0 1 0 | 24 | 35 |
| 18 | 500Hz Continuous IMO code 2 (Low) (f=500) | | 1 0 0 0 1 0 | 24 | 35 |
| 19 | 554Hz Continuous (f=554) | | 0 1 0 0 1 0 | 24 | 35 |
| 20 | 660Hz Continuous (f=660) | | 1 1 0 0 1 0 | 24 | 35 |
| 21 | 800Hz IMO code 2 (High) (f=800) | | 0 0 1 0 1 0 | 24 | 35 |
| 22 | 1200Hz Continuous (f=1200) | | 1 0 1 0 1 0 | 24 | 35 |
| 23 | 2000Hz Continuous (f=2000) | | 0 1 1 0 1 0 | 3 | 35 |
| 24 | 2400Hz Continuous (f=2400) | | 1 1 1 0 1 0 | 20 | 35 |
| 25 | 440Hz @0.83Hz (50 cycles/minute) Intermittent (f=440, a=0.6, b=0.6) | | 0 0 0 1 1 0 | 44 | 8 |
| 26 | 470Hz @0.9Hz - 1.1s Intermittent (f=470, a=0.55, b=0.55) | | 1 0 0 1 1 0 | 44 | 8 |
| 27 | 470Hz @5Hz - (5 cycles/second) Intermittent (f=470, a=0.1, b=0.1) | | 0 1 0 1 1 0 | 44 | 8 |
| 28 | 544Hz @ 1.14Hz - 0.875s Intermittent (f=470, a=0.43, b=0.44) | | 1 1 0 1 1 0 | 24 | 8 |
| 29 | 655Hz @ 0.875Hz Intermittent (f=655, a=0.57, b=0.57) | | 0 0 1 1 1 0 | 44 | 8 |
| 30 | 660Hz @0.28Hz - 1.8sec on, 1.8sec off Intermittent (f=660, a=1.8, b=1.8) | | 1 0 1 1 1 0 | 24 | 8 |
| 31 | 660Hz @3.34Hz - 150mS on, 150mS off Intermittent (f=660, a=0.15, b=0.15) | | 0 1 1 1 1 0 | 24 | 8 |
| 32 | 745Hz @ 1Hz Intermittent (f=745, a=0.5, b=0.5) | | 1 1 1 1 1 0 | 24 | 8 |
| 33 | 800Hz - 0.25sec on, 1 sec off Intermittent (f=800, a=0.25, b=1) | | 0 0 0 0 0 1 | 24 | 8 |
| 34 | 800Hz @ 2Hz IMO code 3.a (High) Intermittent (f=800, a=0.25, b=0.25) | | 1 0 0 0 0 1 | 24 | 8 |
| 35 | 1000Hz @ 1Hz Intermittent (f=1000, a=0.5, b=0.5) | | 0 1 0 0 0 1 | 24 | 8 |
| 36 | 2400Hz @ 1Hz Intermittent (f=2400, a=0.5, b=0.5) | | 1 1 0 0 0 1 | 24 | 8 |
| 37 | 2900Hz @ 5Hz Intermittent (f=2900, a=0.1, b=0.1) | | 0 0 1 0 0 1 | 24 | 8 |
| 38 | 363/518Hz @ 1Hz Alternating (f=363, f1=518, a=0.1) | | 1 0 1 0 0 1 | 8 | 19 |
| 39 | 450/500Hz @ 2Hz Alternating (f=450, f1=500, a=0.25) | | 0 1 1 0 0 1 | 8 | 19 |
| 40 | 554/440Hz @ 1Hz Alternating (f=440, f1=554, a=0.5) | | 1 1 1 0 0 1 | 24 | 19 |
| 41 | 554/440Hz @ 0.625Hz Alternating (f=440, f1=554, a=0.8) | | 0 0 0 1 0 1 | 8 | 19 |
| 42 | 561/760Hz @0.83Hz (50 cycles/minute) Alternating (f=561, f1=760, a=0.6) | | 1 0 0 1 0 1 | 8 | 19 |
| 43 | 780/600Hz @ 0.96Hz Alternating (f=600, f1=780, a=0.52) | | 0 1 0 1 0 1 | 8 | 19 |
| 44 | 800/1000Hz @ 2Hz Alternating (f=800, f1=1000, a=0.25) | | 1 1 0 1 0 1 | 24 | 19 |
| 45 | 970/800Hz @ 2Hz Alternating (f=800, f1=970, a=0.25) | | 0 0 1 1 0 1 | 8 | 19 |
| 46 | 800/1000Hz @ 0.875Hz Alternating (f=800, f1=1000, a=0.57) | | 1 0 1 1 0 1 | 24 | 19 |
| 47 | 2400/2900Hz @ 2Hz Alternating (f=2400, f1=2900, a=0.25) | | 0 1 1 1 0 1 | 24 | 19 |
| 48 | 500/1200Hz @ 0.3Hz Sweeping (f=500, f1=1200, a=3.34) | | 1 1 1 1 0 1 | 24 | 12 |
| 49 | 560/1055Hz @ 0.18Hz Sweeping (f=560, f1=1055, a=5.47) | | 0 0 0 0 1 1 | 24 | 12 |
| 50 | 560/1055Hz @ 3.3Hz Sweeping (f=560, f1=1055, a=0.3) | | 1 0 0 0 1 1 | 24 | 12 |
| 51 | 600/1250Hz @ 0.125Hz Sweeping (f=600, f1=1250, a=8) | | 0 1 0 0 1 1 | 24 | 12 |
| 52 | 660/1200Hz @ 1Hz Sweeping (f=660, f1=1200, a=1) | | 1 1 0 0 1 1 | 24 | 12 |
| 53 | 800/1000Hz @ 1Hz Sweeping (f=800, f1=1000, a=1) | | 0 0 1 0 1 1 | 24 | 12 |
| 54 | 800/1000Hz @ 7Hz Sweeping (f=800, f1=1000, a=0.14) | | 1 0 1 0 1 1 | 24 | 12 |
| 55 | 800/1000Hz @ 50Hz Sweeping (f=800, f1=1000, a=0.02) | | 0 1 1 0 1 1 | 24 | 12 |
| 56 | 2400/2900Hz @ 7Hz Sweeping (f=2400, f1=2900, a=0.14) | | 1 1 1 0 1 1 | 24 | 12 |
| 57 | 2400/2900Hz @ 1Hz Sweeping (f=2400, f1=2900, a=1) | | 0 0 0 1 1 1 | 24 | 12 |
| 58 | 2400/2900Hz @ 50Hz Sweeping (f=2400, f1=2900, a=0.02) | | 1 0 0 1 1 1 | 24 | 12 |
| 59 | 2500/3000Hz @ 2Hz Sweeping (f=2500, f1=3000, a=0.5) | | 0 1 0 1 1 1 | 24 | 12 |
| 60 | 2500/3000Hz @ 7.7Hz Sweeping (f=2500, f1=3000, a=0.13) | | 1 1 0 1 1 1 | 24 | 12 |
| 61 | 800Hz Motor Siren (f=800, a=1.6) | | 0 0 1 1 1 1 | 24 | 12 |
| 62 | 1200Hz Motor Siren (f=1200, a=2) | | 1 0 1 1 1 1 | 24 | 12 |
| 63 | 2400Hz Motor Siren (f=2400, a=1.7) | | 0 1 1 1 1 1 | 24 | 12 |
| 64 | Simulated Bell | | 1 1 1 1 1 1 | 21 | 12 |

| Tone Reference No. | Tone Description | Tone Visual | Stage 1 Switch 1 Stage 2 Switch 2 Settings 1 2 3 4 5 6 | Stage 3 Pre-determined by Stage 1 selection |
|--------------------|--|-------------|---|---|
| 1 | 1000Hz PFEER Toxic Gas | | 0 0 0 0 0 | 44 |
| 2 | 1200/500Hz @ 1Hz DIN /PFEER P.T.A.P. | | 1 0 0 0 0 | 44 |
| 3 | 1000Hz @ 0.5Hz(1s on, 1soff) PFEER Gen. Alarm | | 0 1 0 0 0 | 44 |
| 4 | 1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s NF C 48-265 | | 1 1 0 0 0 | 1 |
| 5 | 544Hz(100mS)/440Hz (400mS) NF S 32-001 | | 0 0 1 0 0 | 1 |
| 6 | 1500/500Hz - (0.5s on , 0.5s off) x3 + 1s gap AS4428 | | 1 0 1 0 0 | 1 |
| 7 | 500-1500Hz Sweeping 2 sec on 1 sec off AS4428 | | 0 1 1 0 0 | 1 |
| 8 | 500/1200Hz @ 0.26Hz (3.3son, 0.5s off) Netherlands - NEN 2575 | | 1 1 1 0 0 | 35 |
| 9 | 1000Hz (1s on, 1s off)x7 + (7s on, 1s off) IMO Code 1a | | 0 0 0 1 0 0 | 1 |
| 10 | 1000Hz (1s on, 1s off)x7 + (7s on, 1s off) IMO Code 1a | | 1 0 0 1 0 0 | 1 |
| 11 | 420Hz(0.5s on, 0.5s off)x3 + 1s gap ISO 8201 Temporal Pattern | | 0 1 0 1 0 0 | 8 |
| 12 | 1000Hz(0.5s on, 0.5s off)x3 + 1s gap ISO 8201 Temporal Pattern | | 1 1 0 1 0 0 | 8 |
| 13 | 422/775Hz - (0.85 on, 0.5 off) x3 + 1s gap NFPA - Temporal Coded | | 0 0 1 1 0 0 | 8 |
| 14 | 1000/2000Hz @ 1Hz Singapore | | 1 0 1 1 0 0 | 35 |
| 15 | 300Hz Continuous (f=300) | | 0 1 1 1 0 0 | 35 |
| 16 | 440Hz Continuous (f=440) | | 1 1 1 1 0 0 | 35 |
| 17 | 470Hz Continuous (f=470) | | 0 0 0 1 0 | 35 |
| 18 | 500Hz Continuous IMO code 2 (Low) (f=500) | | 1 0 0 0 1 0 | 35 |
| 19 | 554Hz Continuous (f=554) | | 0 1 0 0 1 0 | 35 |
| 20 | 660Hz Continuous (f=660) | | 1 1 0 0 1 0 | 35 |
| 21 | 800Hz IMO code 2 (High) (f=800) | | 0 0 1 0 1 0 | 35 |
| 22 | 1200Hz Continuous (f=1200) | | 1 0 1 0 1 0 | 35 |
| 23 | 2000Hz Continuous (f=2000) | | 0 1 1 0 1 0 | 35 |
| 24 | 2400Hz Continuous (f=2400) | | 1 1 1 0 1 0 | 35 |
| 25 | 440Hz @0.83Hz (50 cycles/minute) Intermittent (f=440, a=0.6, b=0.6) | | 0 0 0 1 1 0 | 8 |
| 26 | 470Hz @0.9Hz - 1.1s Intermittent (f=470, a=0.55, b=0.55) | | 1 0 0 1 1 0 | 8 |
| 27 | 470Hz @5Hz - (5 cycles/second) Intermittent (f=470, a=0.1, b=0.1) | | 0 1 0 1 1 0 | 8 |
| 28 | 544Hz @ 1.14Hz - 0.875s Intermittent (f=470, a=0.43, b=0.44) | | 1 1 0 1 1 0 | 8 |
| 29 | 655Hz @ 0.875Hz Intermittent (f=655, a=0.57, b=0.57) | | 0 0 1 1 1 0 | 8 |
| 30 | 660Hz @0.28Hz - 1.8sec on, 1.8sec off Intermittent (f=660, a=1.8, b=1.8) | | 1 0 1 1 1 0 | 8 |
| 31 | 660Hz @3.34Hz - 150mS on, 150mS off Intermittent (f=660, a=0.15, b=0.15) | | 0 1 1 1 1 0 | 8 |
| 32 | 745Hz @ 1Hz Intermittent (f=745, a=0.5, b=0.5) | | 1 1 1 1 1 0 | 8 |
| 33 | 800Hz - 0.25sec on, 1 sec off Intermittent (f=800, a=0.25, b=1) | | 0 0 0 0 0 1 | 8 |
| 34 | 800Hz @ 2Hz IMO code 3.a (High) Intermittent (f=800, a=0.25, b=0.25) | | 1 0 0 0 0 1 | 8 |
| 35 | 1000Hz @ 1Hz Intermittent (f=1000, a=0.5, b=0.5) | | 0 1 0 0 0 1 | 8 |
| 36 | 2400Hz @ 1Hz Intermittent (f=2400, a=0.5, b=0.5) | | 1 1 0 0 0 1 | 8 |
| 37 | 2900Hz @ 5Hz Intermittent (f=2900, a=0.1, b=0.1) | | 0 0 1 0 0 1 | 8 |
| 38 | 363/518Hz @ 1Hz Alternating (f=363, f1=518, a=0.1) | | 1 0 1 0 0 1 | 19 |
| 39 | 450/500Hz @ 2Hz Alternating (f=450, f1=500, a=0.25) | | 1 0 1 0 0 1 | 19 |
| 40 | 554/440Hz @ 1Hz Alternating (f=440, f1=554, a=0.5) | | 1 1 1 0 0 1 | 19 |
| 41 | 554/440Hz @ 0.625Hz Alternating (f=440, f1=554, a=0.8) | | 0 0 0 1 0 1 | 19 |
| 42 | 561/760Hz @0.83Hz (50 cycles/minute) Alternating (f=561, f1=760, a=0.6) | | 1 0 0 1 0 1 | 19 |
| 43 | 780/600Hz @ 0.96Hz Alternating (f=600, f1=780, a=0.52) | | 0 1 0 1 0 1 | 19 |
| 44 | 800/1000Hz @ 2Hz Alternating (f=800, f1=1000, a=0.25) | | 1 1 0 1 0 1 | 19 |
| 45 | 970/800Hz @ 2Hz Alternating (f=800, f1=970, a=0.25) | | 0 0 1 1 0 1 | 19 |
| 46 | 800/1000Hz @ 0.875Hz Alternating (f=800, f1=1000, a=0.57) | | 1 0 1 1 0 1 | 19 |
| 47 | 2400/2900Hz @ 2Hz Alternating (f=2400, f1=2900, a=0.25) | | 0 1 1 1 0 1 | 19 |
| 48 | 500/1200Hz @ 0.3Hz Sweeping (f=500, f1=1200, a=3.34) | | 1 1 1 1 0 1 | 12 |
| 49 | 560/1055Hz @ 0.18Hz Sweeping (f=560, f1=1055, a=5.47) | | 0 0 0 0 1 1 | 12 |
| 50 | 560/1055Hz @ 3.3Hz Sweeping (f=560, f1=1055, a=0.3) | | 1 0 0 0 1 1 | 12 |
| 51 | 600/1250Hz @ 0.125Hz Sweeping (f=600, f1=1250, a=8) | | 0 1 0 0 1 1 | 12 |
| 52 | 660/1200Hz @ 1Hz Sweeping (f=660, f1=1200, a=1) | | 1 1 0 0 1 1 | 12 |
| 53 | 800/1000Hz @ 1Hz Sweeping (f=800, f1=1000, a=1) | | 0 0 1 0 1 1 | 12 |
| 54 | 800/1000Hz @ 7Hz Sweeping (f=800, f1=1000, a=0.14) | | 1 0 1 0 1 1 | 12 |
| 55 | 800/1000Hz @ 50Hz Sweeping (f=800, f1=1000, a=0.02) | | 0 1 1 0 1 1 | 12 |
| 56 | 2400/2900Hz @ 7Hz Sweeping (f=2400, f1=2900, a=0.14) | | 1 1 1 0 1 1 | 12 |
| 57 | 2400/2900Hz @ 1Hz Sweeping (f=2400, f1=2900, a=1) | | 0 0 0 1 1 1 | 12 |
| 58 | 2400/2900Hz @ 50Hz Sweeping (f=2400, f1=2900, a=0.02) | | 1 0 0 1 1 1 | 12 |
| 59 | 2500/3000Hz @ 2Hz Sweeping (f=2500, f1=3000, a=0.5) | | 0 1 0 1 1 1 | 12 |
| 60 | 2500/3000Hz @ 7.7Hz Sweeping (f=2500, f1=3000, a=0.13) | | 1 1 0 1 1 1 | 12 |
| 61 | 800Hz Motor Siren (f=800, a=1.6) | | 0 0 1 1 1 1 | 12 |
| 62 | 1200Hz Motor Siren (f=1200, a=2) | | 1 0 1 1 1 1 | 12 |
| 63 | 2400Hz Motor Siren (f=2400, a=1.7) | | 0 1 1 1 1 1 | 12 |
| 64 | Simulated Bell | | 1 1 1 1 1 1 | 12 |

| | | | | | | | | | |
|--|--|--|--|--|--|--|-------|---------|---|
| | | | | | | | | | |
| | | | | | | | ISSUE | MOD No. | REASON - INITIAL - DATE |
| | | | | | | | B | | AMENDED NOTES 1b & 1c RSR - 24/01/2023 |
| | | | | | | | 1 | ACN0154 | POSITIVE SWITCHING INTRODUCED RSR - 31/07/2024 |

-VE SWITCHING
(DEFAULT)
HEADER PINS P7,
P8 & P9 NOT
CONNECTED

OPTIONAL LINE MONITORING RESISTOR, CUSTOMER SUPPLIED,
RECOMMENDED MINIMUM VALUES:
14V MAX SYSTEM = 120Ω MIN, 2W MIN OR 1KΩ MIN, 0.5W MIN
28V MAX SYSTEM = 470Ω MIN, 2W MIN OR 2.4KΩ MIN, 0.5W MIN

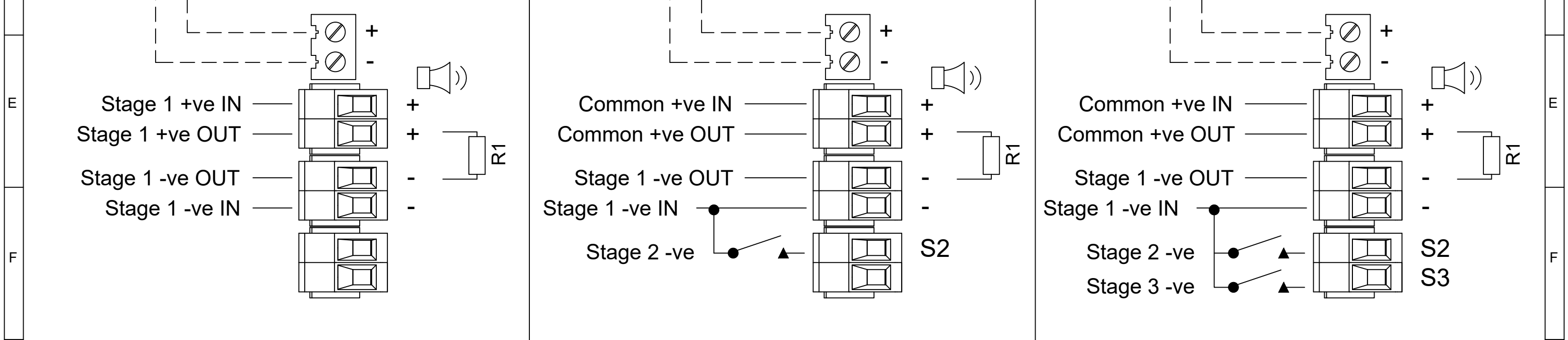
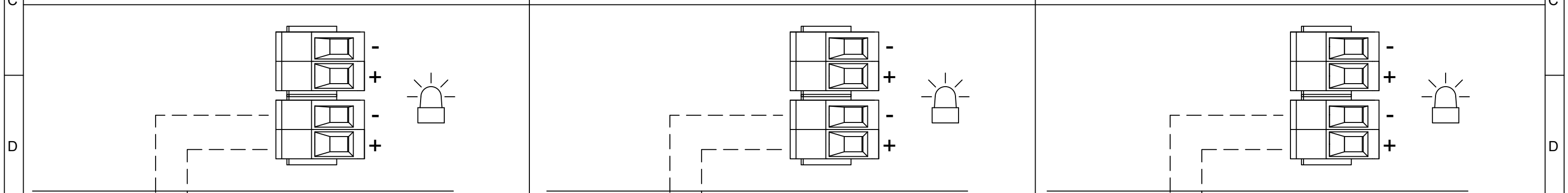
WIRING LINKING BEACON & SOUNDER
FACTORY FITTED

Linked Sounder & Beacon Activation (Default) -ve Switching (Default P7, P8 & P9 setting)

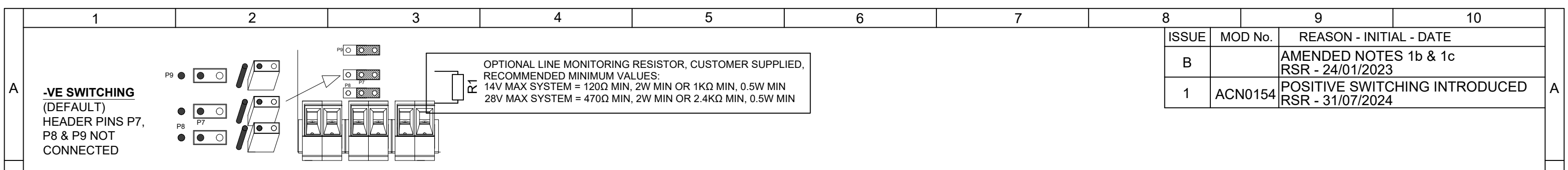
| | | | | | |
|----------------------------|-------------|-------------------------|-------------|--------------------------------|-------------|
| Single Stage Configuration | Config.: 1a | Two Stage Configuration | Config.: 1b | Three/Four Stage Configuration | Config.: 1c |
|----------------------------|-------------|-------------------------|-------------|--------------------------------|-------------|

| | | |
|-----------------|---------------------------------|---------------------------------|
| Line Monitoring | Common Positive (-ve Switching) | Common Positive (-ve Switching) |
|-----------------|---------------------------------|---------------------------------|

| | | |
|--|---|---|
| <p>Stage 1: Apply Power to Stage 1 +ve & Stage 1 -ve</p> | <p>Stage 1: Apply Power to Common +ve & Stage 1 -ve Stage 2: Apply Power to Common +ve & Stage 1 -ve & connect Stage 2 -ve to Stage 1 -ve</p> | <p>Stage 1: Apply Power to Common +ve & Stage 1 -ve Stage 2: Apply Power to Common +ve & Stage 1 -ve & connect Stage 2 -ve to Stage 1 -ve Stage 3: Apply Power to Common +ve & Stage 1 -ve & connect Stage 3 -ve to Stage 1 -ve Stage 4: Apply Power to Common +ve & Stage 1 -ve & connect Stage 2 -ve & Stage 3 -ve to Stage 1 -ve</p> |
|--|---|---|



| | | | | | | | | |
|---|--|----------------------|-------------|---|---|---|------------------------|--------------------------------------|
| DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS | DRAWN R.S.RAIT DATE 16/03/2021 | SURFACE FINISH | WEIGHT (Kg) | THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT. | | ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE | | A3 |
| STANDARDS ALERTALARM RANGE | CHECKED B.ISARD DATE 16/03/2021 | MATERIAL | | © EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE | EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM | TITLE AL100X, AL105NX & DL105X DC COMBINED SOUNDER & XENON WIRING DIAGRAMS | | |
| | APPROVED R.N.POTTS DATE 16/03/2021 | ALTERNATIVE MATERIAL | | | | SCALE NTS | SHEET 1 OF 4 | DRAWING NUMBER D218-06-201 |



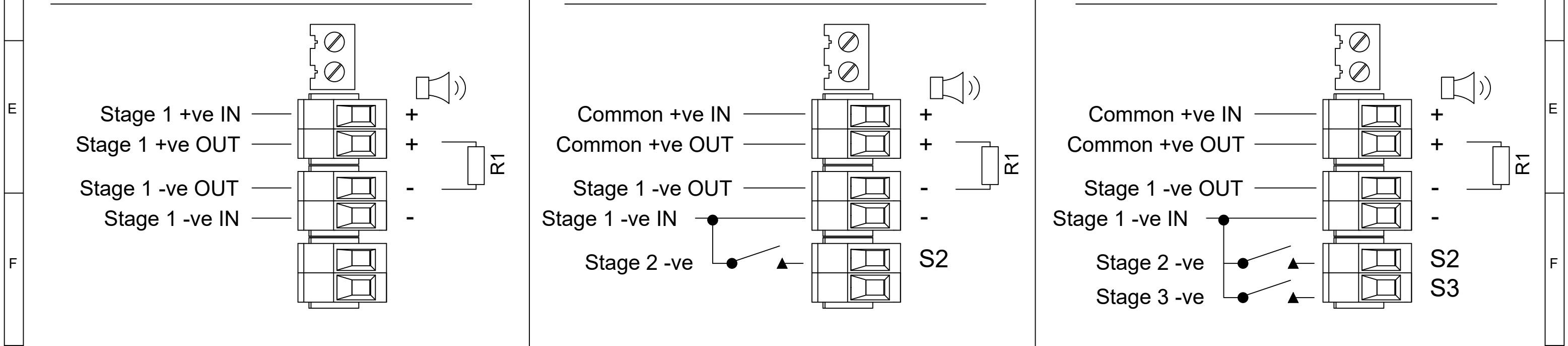
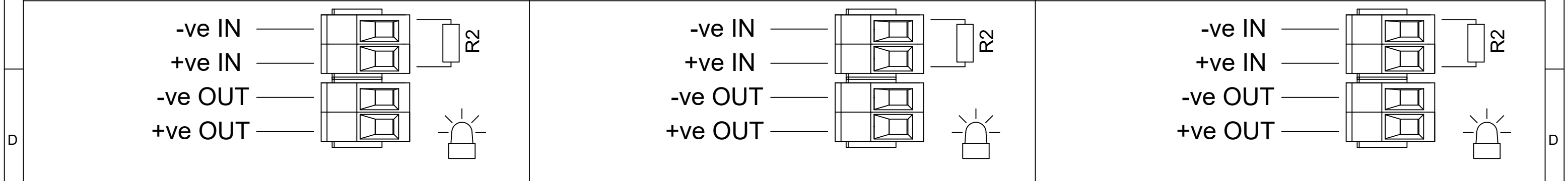
| ISSUE | MOD No. | REASON - INITIAL - DATE |
|-------|---------|---|
| B | | AMENDED NOTES 1b & 1c RSR - 24/01/2023 |
| 1 | ACN0154 | POSITIVE SWITCHING INTRODUCED RSR - 31/07/2024 |

Independent Sounder & Beacon Activation (Remove Link Wires) / -ve Switching (Default P7, P8 & P9 setting)

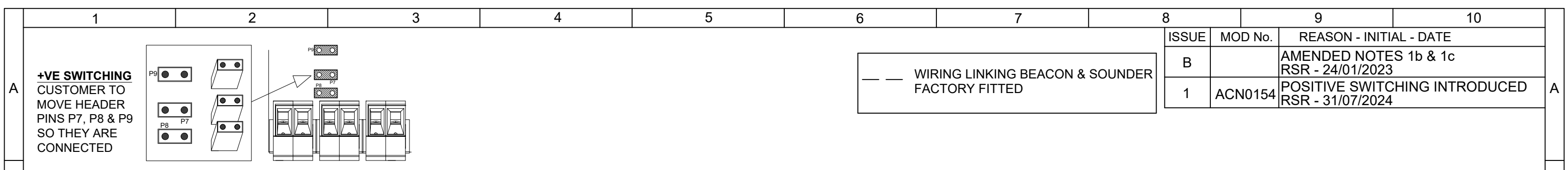
| Single Stage Configuration | Config.: 5a | Two Stage Configuration | Config.: 5b | Three/Four Stage Configuration | Config.: 5c |
|----------------------------|-------------|-------------------------|-------------|--------------------------------|-------------|
|----------------------------|-------------|-------------------------|-------------|--------------------------------|-------------|

| Line Monitoring | Common Positive (-ve Switching) | Common Positive (-ve Switching) |
|-----------------|---------------------------------|---------------------------------|
|-----------------|---------------------------------|---------------------------------|

| | | |
|---|---|---|
| Stage 1: Apply Power to Stage 1 +ve & Stage 1 -ve | Stage 1: Apply Power to Common +ve & Stage 1 -ve Stage 2: Apply Power to Common +ve & Stage 1 -ve & connect Stage 2 -ve to Stage 1 -ve | Stage 1: Apply Power to Common +ve & Stage 1 -ve Stage 2: Apply Power to Common +ve & Stage 1 -ve & connect Stage 2 -ve to Stage 1 -ve Stage 3: Apply Power to Common +ve & Stage 1 -ve & connect Stage 3 -ve to Stage 1 -ve Stage 4: Apply Power to Common +ve & Stage 1 -ve & connect Stage 2 -ve & Stage 3 -ve to Stage 1 -ve |
|---|---|---|

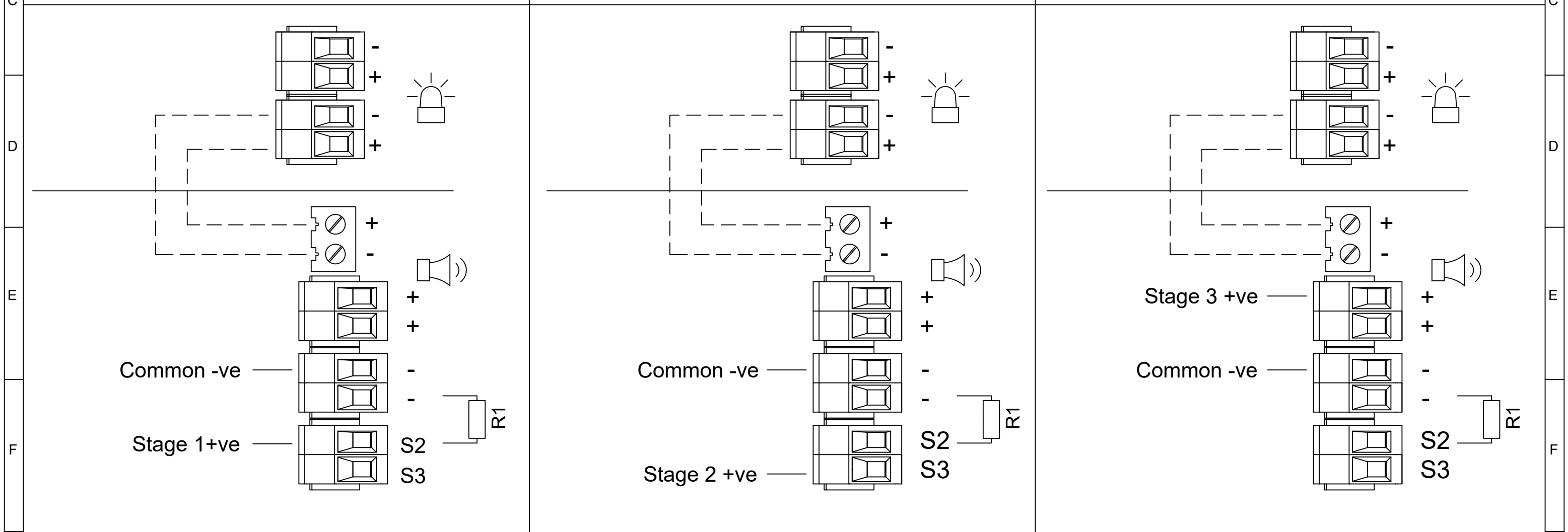



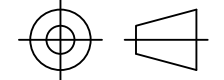
| | | | | | | | | | | |
|---|-------------------------------|------------------------------|---------------------------|----------------------|---|---|--|------------------------|--------------------------------------|--|
| DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS | DRAWN R.S.RAIT | DATE 16/03/2021 | SURFACE FINISH | WEIGHT (Kg) | THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT. © EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE | EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM | ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE | | A3 | |
| | CHECKED B.ISARD | DATE 16/03/2021 | MATERIAL | | | | TITLE AL100X, AL105NX & DL105X DC COMBINED SOUNDER & XENON WIRING DIAGRAMS | | | |
| | STANDARDS ALERTALARM RANGE | APPROVED R.N.POTTS | DATE 16/03/2021 | ALTERNATIVE MATERIAL | | | SCALE NTS | SHEET 2 OF 4 | DRAWING NUMBER D218-06-201 | |
| | | | | | | | | | | |

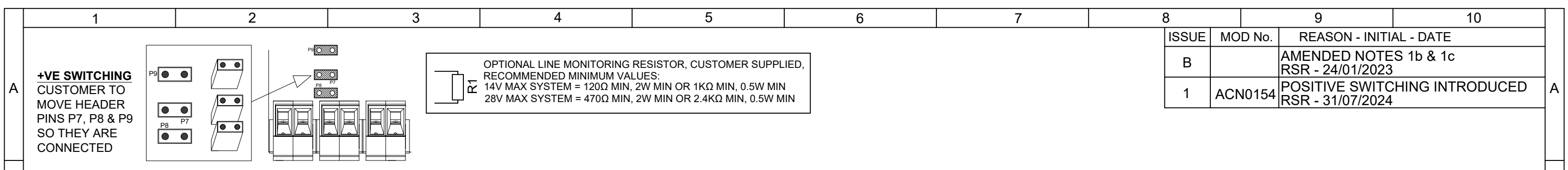


Linked Sounder & Beacon Activation (Default) / +ve Switching (Customer to set P7, P8 & P9 as above)

| Stage 1 Configuration | Config.: 2a | Stage 2 Configuration | Config.: 2b | Stage 3 Configuration | Config.: 2c |
|--|-------------|--|-------------|---|-------------|
| Common Negative (+ve Switching) | | Common Negative (+ve Switching) | | Common Negative (+ve Switching) | |
| Single Stage Line Monitoring, Maximum Monitoring Voltage 4Vdc Not to be used for reverse polarity line monitoring Stage 1: Apply Stage 1 +ve to terminal 'S2' & Common -ve to terminal '-' | | Single Stage Line Monitoring, Maximum Monitoring Voltage 4Vdc Not to be used for reverse polarity line monitoring Stage 2: Apply Stage 2 +ve to terminal 'S3' & Common -ve to terminal '-' | | Single Stage Line Monitoring, Maximum Monitoring Voltage 4Vdc Not to be used for reverse polarity line monitoring Stage 3: Apply Stage 3 +ve to terminal '+' & Common -ve to terminal '-' | |



| | | | | | | | |
|--|--|-----------------------------------|---|---|--|---|--------------------------------------|
| DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS STANDARDS ALERTALARM RANGE | DRAWN R.S.RAIT DATE 16/03/2021 | SURFACE FINISH WEIGHT (Kg) | THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT. © EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE |  warning signals EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM | ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE |  | A3 |
| | CHECKED B.ISARD DATE 16/03/2021 | MATERIAL | | | TITLE AL100X, AL105NX & DL105X DC COMBINED SOUNDER & XENON WIRING DIAGRAMS | | |
| | APPROVED R.N.POTTS DATE 16/03/2021 | ALTERNATIVE MATERIAL | | | SCALE NTS | SHEET 3 OF 4 | DRAWING NUMBER D218-06-201 |
| | | | | | | | |

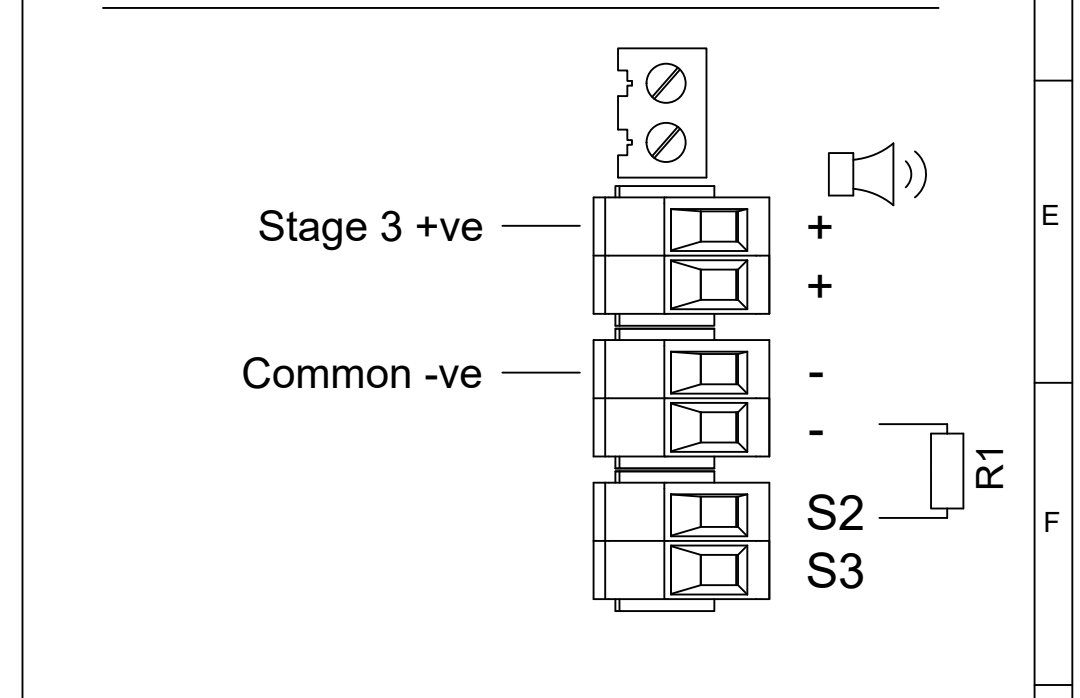
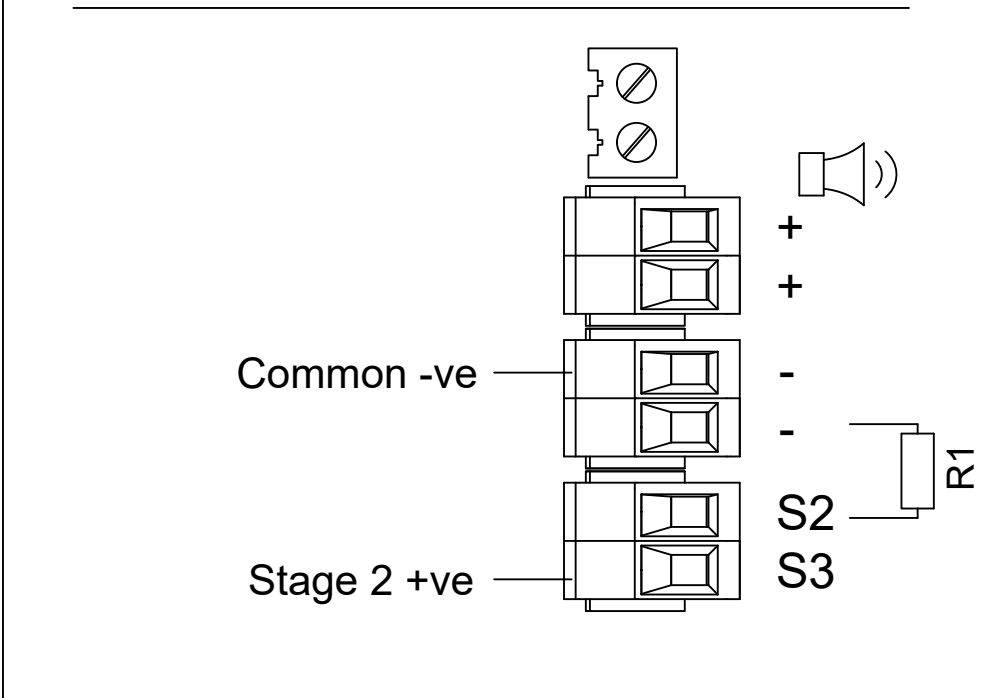
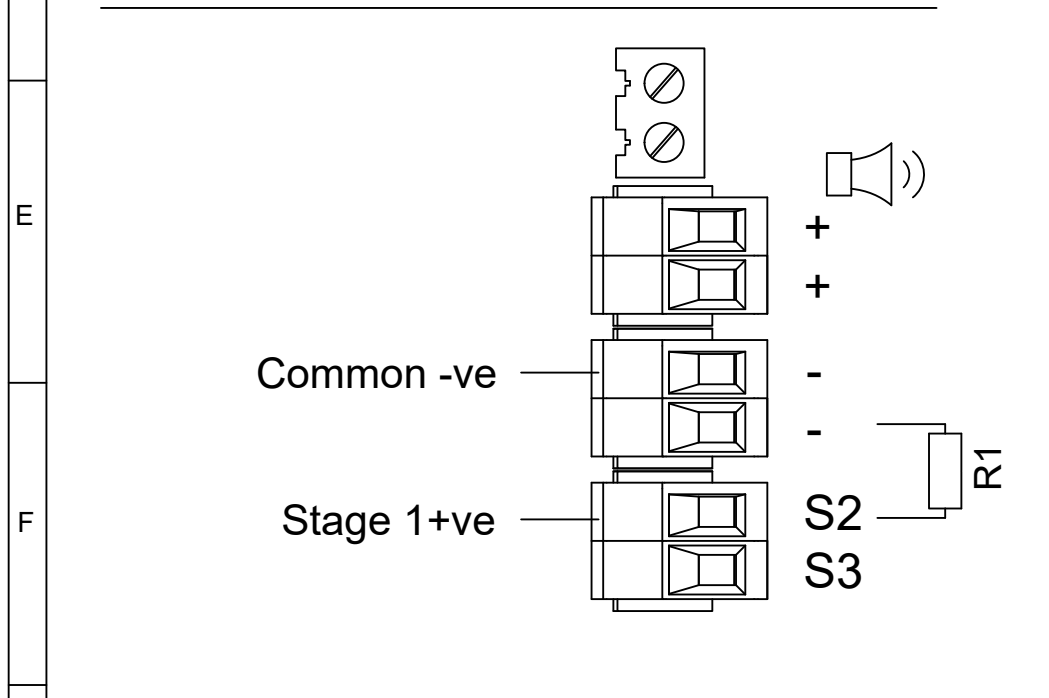
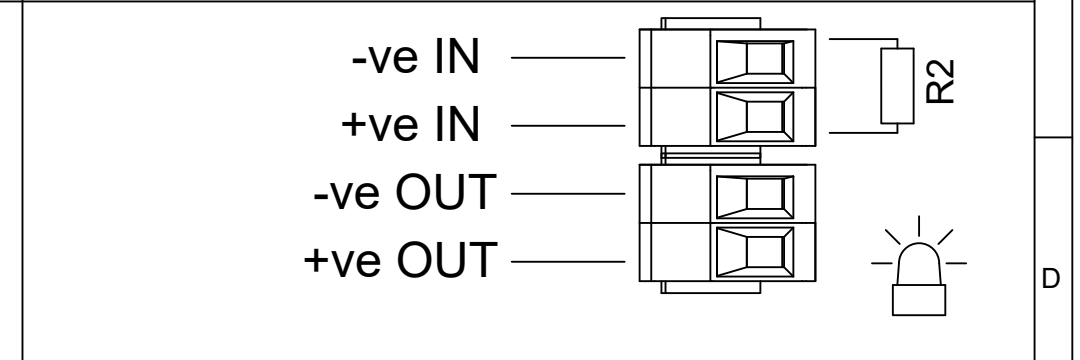
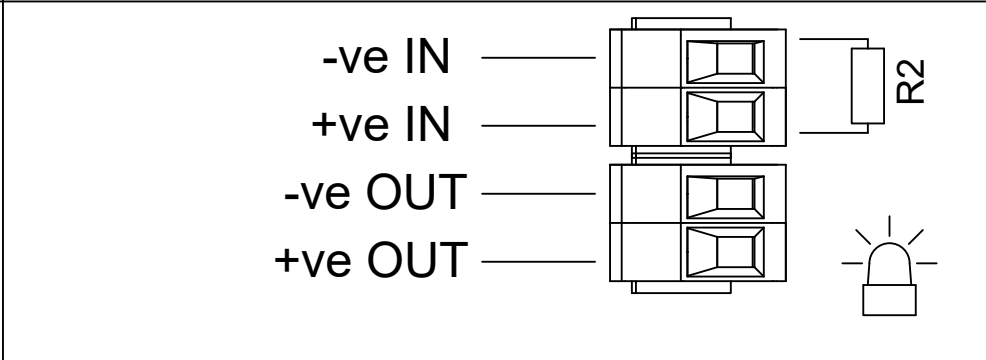
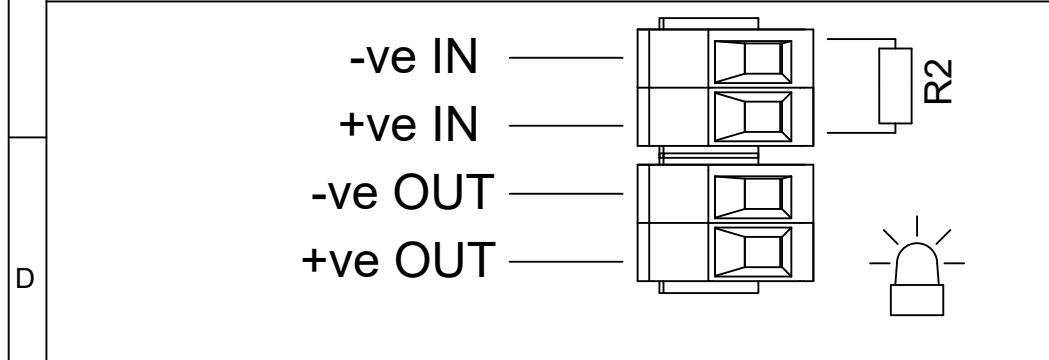


Independent Sounder & Beacon Activation (Remove Link Wires) / +ve Switching (Customer to set P7, P8 & P9 as above)

Stage 1 Configuration Config.: 6a Stage 2 Configuration Config.: 6b Stage 3 Configuration Config.: 6c

Common Negative (+ve Switching) Common Negative (+ve Switching) Common Negative (+ve Switching)

Single Stage Line Monitoring, Maximum Monitoring Voltage 4Vdc
Not to be used for reverse polarity line monitoring
Stage 1: Apply Stage 1 +ve to terminal 'S2' & Common -ve to terminal '-'
Stage 2: Apply Stage 2 +ve to terminal 'S3' & Common -ve to terminal '-'
Stage 3: Apply Stage 3 +ve to terminal '+' & Common -ve to terminal '-'



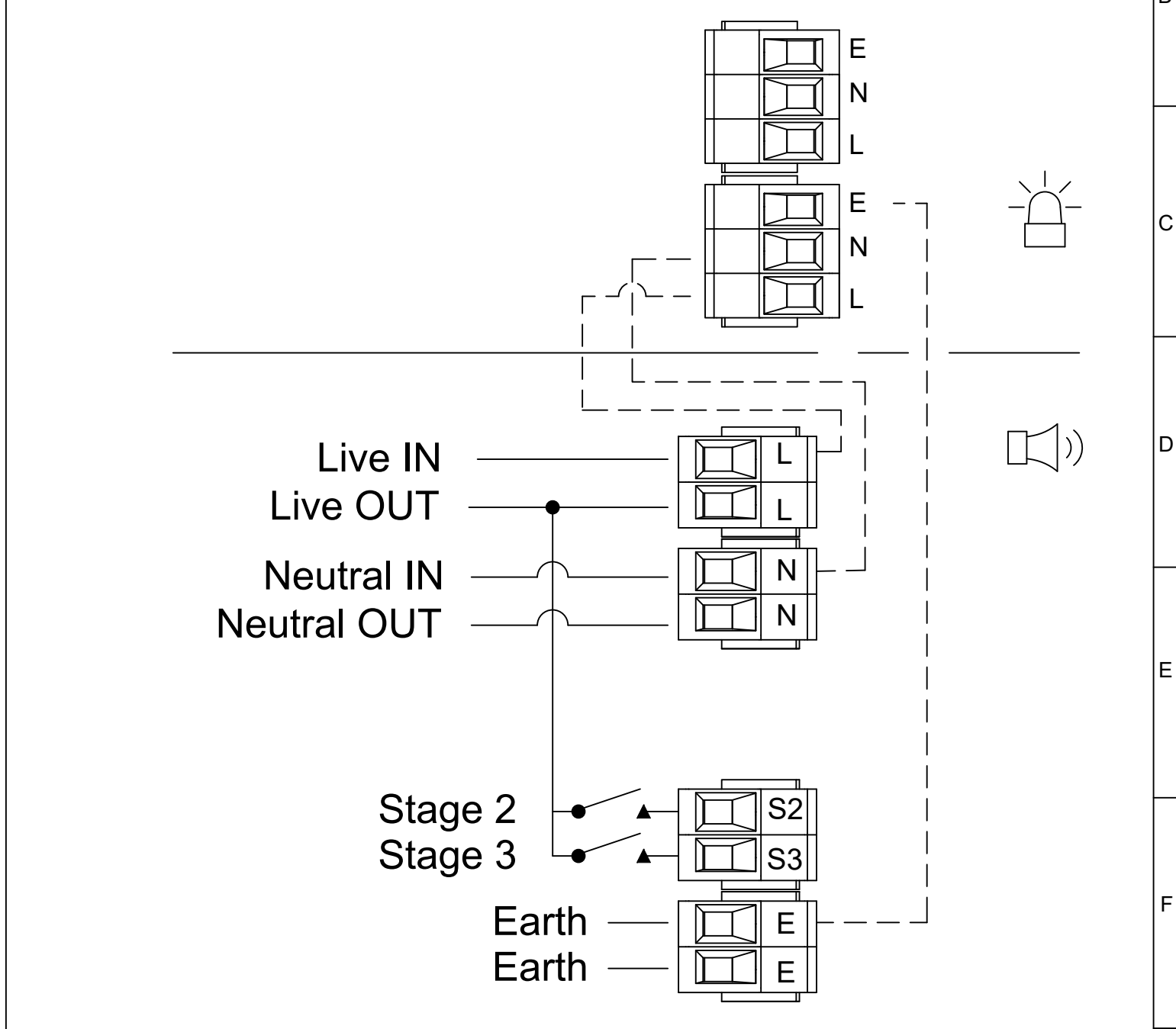
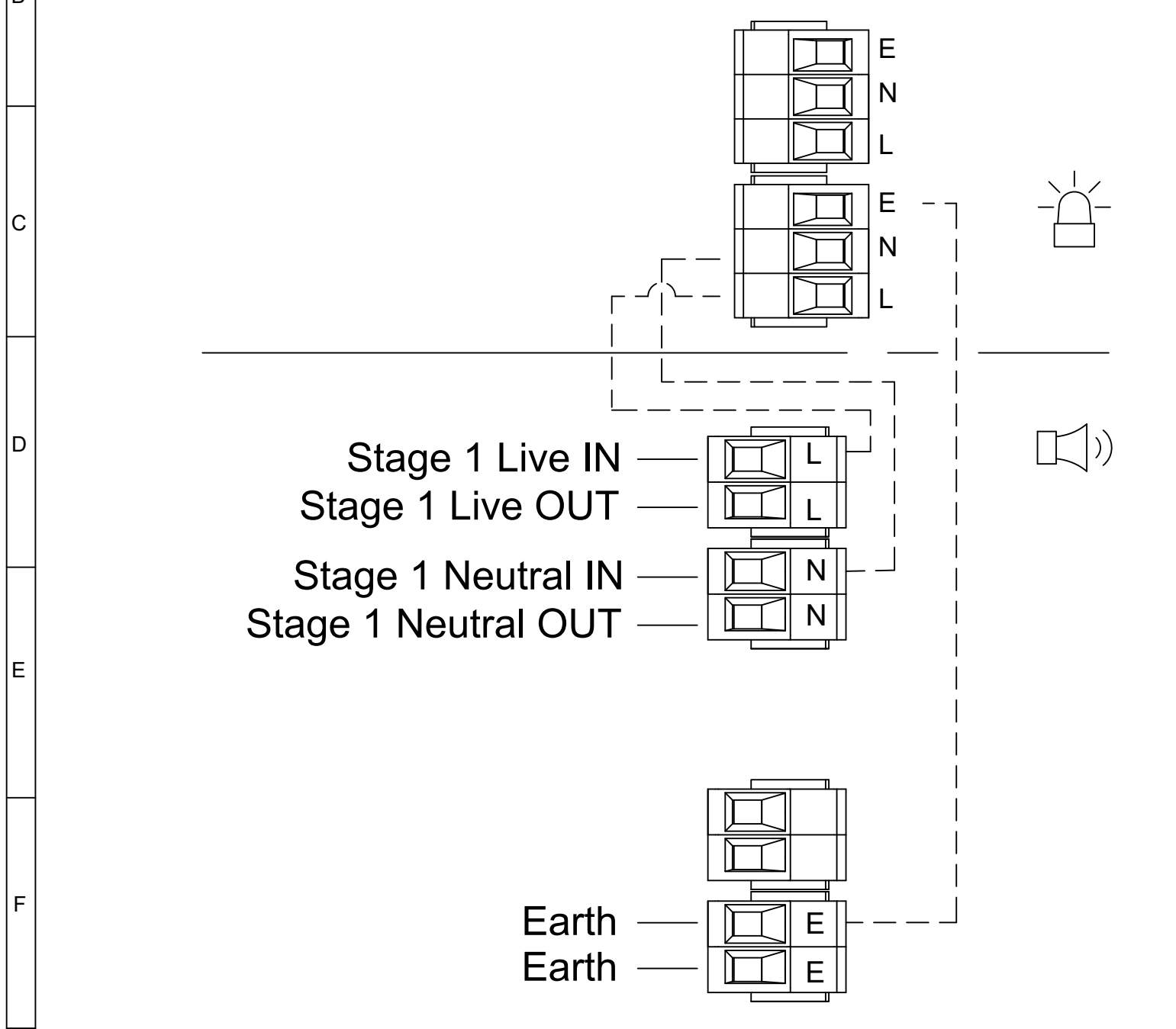
| | | | | | | | | | | |
|---|---|-----------------------|--------------------|----------------------|-------------|---|---|---|-----------------|-------------------------------|
| G | DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS | DRAWN R.S.RAIT | DATE 16/03/2021 | SURFACE FINISH | WEIGHT (Kg) | THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT. © EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE | EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM | ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE | | A3 |
| | STANDARDS | CHECKED B.ISARD | DATE 16/03/2021 | MATERIAL | | | | TITLE AL100X, AL105NX & DL105X DC COMBINED SOUNDER & XENON WIRING DIAGRAMS | | |
| | ALERTALARM RANGE | APPROVED R.N.POTTS | DATE 16/03/2021 | ALTERNATIVE MATERIAL | | | | SCALE NTS | SHEET 4 OF 4 | DRAWING NUMBER D218-06-201 |
| | | | | | | | | | | |

— — WIRING LINKING BEACON & SOUNDER
FACTORY FITTED

SWITCHES FOR STAGE OPERATION
CUSTOMER SUPPLIED

Linked Sounder & Beacon Activation (Default)

| | | | |
|--|-------------|--|-------------|
| Single Stage Configuration | Config.: 1a | Three/Four Stage Configuration | Config.: 1b |
| Stage 1: Apply Power to Stage 1 Live & Stage 1 Neutral | | Stage 1: Apply Power to Live & Neutral Stage 2: Apply Power to Live & Neutral & connect Stage 2 to Live Stage 3: Apply Power to Live & Neutral & connect Stage 3 to Live | |

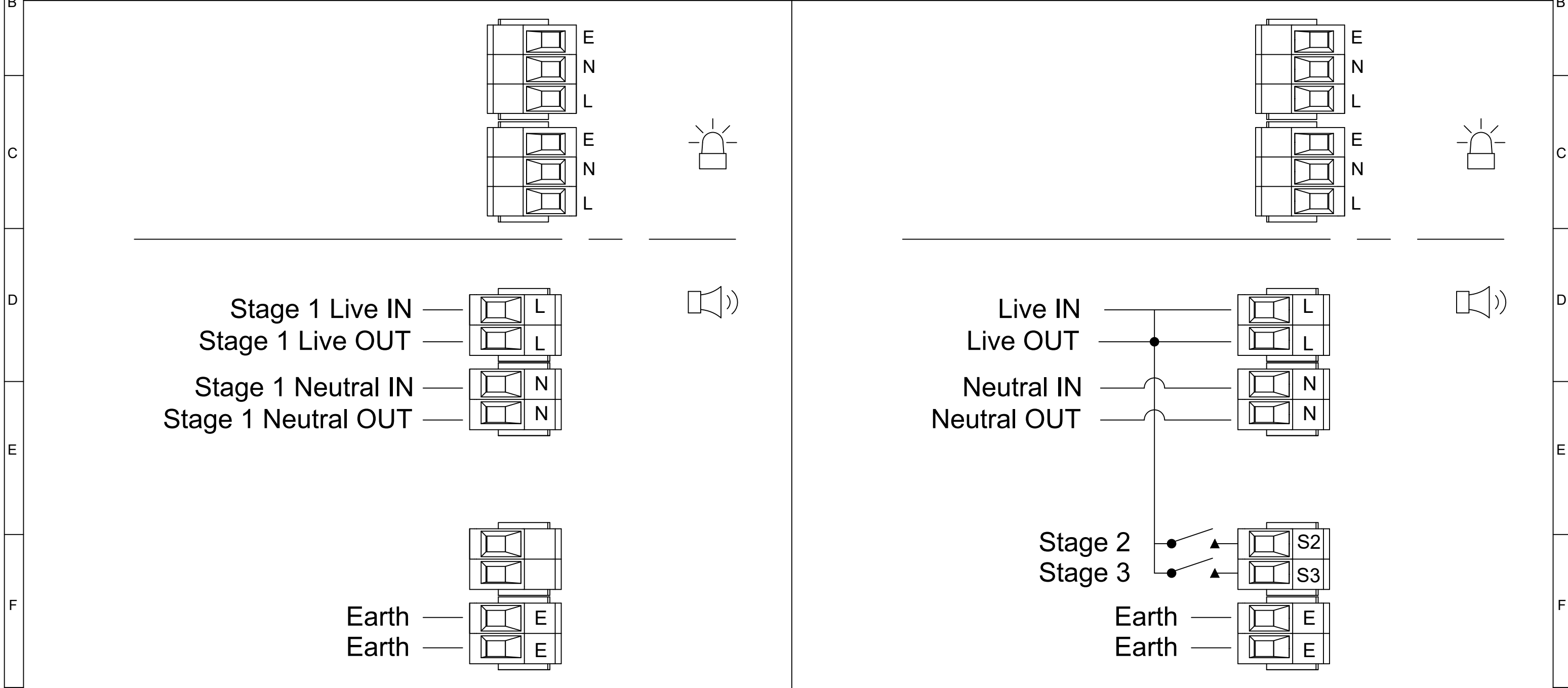


| | | | | | | | | | | | |
|---|-----------|------------|----------------------|-------------|---|---|--|--------|--------------------|-----------|--|
| DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS | DRAWN | DATE | SURFACE FINISH | WEIGHT (Kg) | THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT. | <small>EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM</small> | ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE | | | A3 | |
| | CHECKED | DATE | MATERIAL | | | | TITLE AL100X, AL105NX & DL105X COMBINED SOUNDER & XENON WIRING DIAGRAMS | | | | |
| | APPROVED | DATE | ALTERNATIVE MATERIAL | | | | SCALE | SHEET | DRAWING NUMBER | | |
| ALERTALARM RANGE | R.S.RAIT | 16/03/2021 | | | © EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE | | NTS | 1 OF 2 | D218-06-205 | | |
| | B.ISARD | 16/03/2021 | | | | | | | | | |
| | R.N.POTTS | 16/03/2021 | | | | | | | | | |

SWITCHES FOR STAGE OPERATION
CUSTOMER SUPPLIED

Independent Sounder & Beacon Activation (Remove Link Wires)

| | | | |
|--|-------------|--|-------------|
| Single Stage Configuration Stage 1: Apply Power to Stage 1 Live & Stage 1 Neutral | Config.: 2a | Three/Four Stage Configuration Stage 1: Apply Power to Live & Neutral Stage 2: Apply Power to Live & Neutral & connect Stage 2 to Live Stage 3: Apply Power to Live & Neutral & connect Stage 3 to Live | Config.: 2b |
|--|-------------|--|-------------|



| | | | | | | | | | | | | |
|---|----------|-----------|----------------|----------------------|--|--|--|--------|----------------|--|----|--|
| DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS | DRAWN | DATE | SURFACE FINISH | WEIGHT (Kg) | THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT. © EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE | warning signals EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM | ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE | | | | A3 | |
| | R.S.RAIT | | 16/03/2021 | MATERIAL | | | TITLE AL100X, AL105NX & DL105X COMBINED SOUNDER & XENON WIRING DIAGRAMS | | | | | |
| | CHECKED | | DATE | ALTERNATIVE MATERIAL | | | SCALE | SHEET | DRAWING NUMBER | | | |
| | B.ISARD | | 16/03/2021 | | | | NTS | 2 OF 2 | D218-06-205 | | | |
| STANDARDS | | APPROVED | DATE | | | | | | | | | |
| ALERTALARM RANGE | | R.N.POTTS | 16/03/2021 | | | | | | | | | |