

1) Warnings



Warning – High voltage may be present, risk of electric shock. DO NOT open when energised, disconnect power before opening.



Warning – Hot surfaces. External surfaces and internal components may be hot after operation, take care when handling the equipment.

Please see individual product instruction manual. See Table 1 for Instruction Manual Document Number.

2) Rating & Marking Information

All individual unit ratings must be suitable for the installation.

Please see individual product instruction manual. See Table 1 for Instruction Manual Document Number.

D2xC4 Unit is ETL Listed

Conforms to UL508, UL121201
Certified to CSA C22.2#14, C22.2#213



24V DC Units:
Class I Div 2 Groups ABCD T4..T1 Tamb -40°C to +50°C

115V AC / 230V AC Units:
Class I Div 2 Groups ABCD T4..T2B Tamb -40°C to +50°C

3) Type Approval Standards

Please see individual product instruction manual. See Table 1 for Instruction Manual Document Number.

4) Installation Requirements

Please see individual product instruction manual. See Table 1 for Instruction Manual Document Number.

5) Special Conditions of Use

Please see individual product instruction manual. See Table 1 for Instruction Manual Document Number.

Alarm Bar Component Part Code Ref.	Alarm Bar Component Description	Document Number
D2xB1X05	5 Joule Xenon Strobe Beacon	D211-00-201-IS
D2xB1X10	10 Joule Xenon Strobe Beacon	D211-00-201-IS
D2xB1LD2	Multi-function LED Beacon	D211-00-401-IS
D2xJ1	Junction Box	D211-00-501-IS
D2xS1	Alarm Horn Sounder	D189-00-001-IS

Table 1: Product Instruction Manual Reference

6) Coding

Part Code:	Identifier - Description
Product Type	D2xC4
Junction Box	J1 = DIN Rail Terminals
Beacon Type	1X = D2xB1X05 2X = D2xB1X10 5X = D2xB1LD2 Where X = Lens Colour, choose from: A = Amber, B = Blue, C = Clear, G = Green, M = Magenta, R = Red, Y = Yellow
Sounder	S1 = D2xS1 Sounder
Voltage	DC024 = 24Vdc AC115 = 115-120Vac 50/60Hz AC230 = 220-230Vac 50/60Hz
Cable Entries [e]	A = 2 x M20 (Adaptors) B = 2 x 1/2" NPT (Default) C = 2 x 3/4" NPT (Adaptors) D = 2 x M25 (Adaptors) E = 1 x M20 (Adaptor) F = 1 x 3/4" NPT (Adaptor) G = 1 x M25 (Adaptor)
Stopping Plug / Adaptor Material [m]	B = Brass N = Nickel Plated S = Stainless Steel
Guard / Tag Material [s]	1 = 316 St.Steel Guard & 316 Tag 3 = 316 St.Steel Guard, 316 Tag & Duty Label 5 = 316 St.Steel Guard, 316 Tag & Duty Label Attached by steel wire
Product Version [v]	A = ATEX / IECEx / UL / cUL
Product Option [o]	1 = Standard W = Special Wiring X = Special Configuration Z = Special Software
Assembly Colour [x]	R = Red, G = Grey Other colours also possible, contact E2S sales

7) Location and Mounting

The location of the Alarm Bar should be made with due regard to the area over which the warning signal must be visible/audible. It should only be fixed to poles that can bear the weight of the unit.

The D2xC4 Alarm Bar should be secured to a pole using the supplied E2S Pole Mounting Kit (Pole size up to 4" NPS).

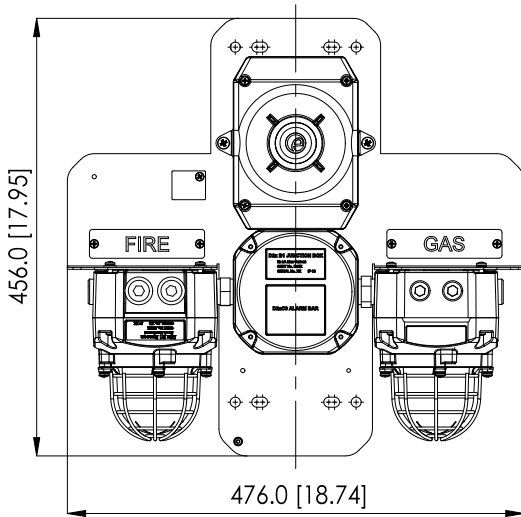


Fig. 1a: Dimensions of D2xC4

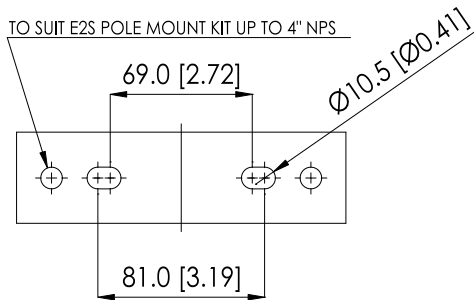


Fig. 1b: Pole Mount Positions

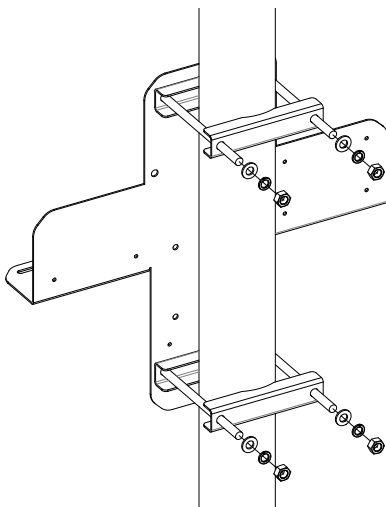


Fig. 1c: E2S Pole Mount Kit Assembly

To mount the unit to poles up to size NPS 4", the E2S pole mount kit should be used (Fig. 1b, 1c). The unit should be mounted using all supplied clamps as shown.

See document D214-00-010-IS for pole mount assembly.

8) Access to the Enclosure



Warning – High voltage may be present, risk of electric shock. DO NOT open when energised, disconnect power before opening.



Warning – Hot surfaces. External surfaces and internal components may be hot after operation, take care when handling the equipment.

In order to connect the electrical supply cables to the junction box it is necessary to remove the cover to gain access to the chamber. To access the chamber, loosen the four M4 posi pan head screws and withdraw the cover. (See figure 2).

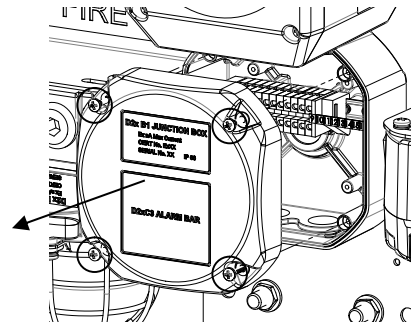


Fig. 2: Accessing the Junction Box

To replace cover, check that the 'O' ring seal is in place. Carefully push the cover in place. Insert and tighten down M4 screws and fibre washers.

9) Power Supply Selection

For Voltage ranges of complete units, take the highest Minimum value and lowest Maximum value in the ranges of the component units. For Current and Max Current ratings of complete units, add the ratings from the component units:

Please see individual product instruction manual for Voltage Range, Current and Max Current values.

For E.g. D2X[C4][J1][1G][1A][S1][AC115]:

Unit Type	D2xJ1	D2xB1X05	D2xB1X05	D2xS1	D2xC4 Total
Voltage Range	230Vac 60Hz max.	115- 120Vac 50/60Hz	115- 120Vac 50/60Hz	115Vac +/-10% 60Hz	115-120Vac 50/60Hz
Current	N/A	80mA	80mA	89mA	249mA
Max Current	N/A	80mA	80mA	91mA	251mA

10) Selection of Cable, Cable Glands, Blanking Elements & Adapters

Please see individual product instruction manual.

The D2xC4 Alarm Bar can be supplied with the following types of adapters:

1/2" NPT to M20
1/2" NPT to 3/4" NPT
1/2" NPT to M25

It is important to note that stopping plugs cannot be fitted onto adapters, only directly onto the 1/2" NPT entries.

11) Earthing

The Stack is provided with an M4 earth post on the plate. External earthing connections should be made to the M4 earthing post, using a ring crimp terminal to secure the earth conductor to the earth stud.

12) Cable Connections

Electrical connections are to be made into the terminals located in the junction box enclosure. See section 8 of this manual for access to the enclosure.

Wires with cross sectional area of 0.5mm² to 2.5mm² may be connected to the terminals. Wires should be stripped to 8mm. Wires may also be fitted using ferrules. Connections should be tightened with torque 0.56 Nm / 5 Lb-in. When connecting wires to the terminals great care should be taken to dress the wires so that when the cover is inserted into the chamber the wires do not exert excess pressure on the terminal blocks. This is particularly important when using cables with large cross-sectional areas such as 2.5mm².

See Fig. 3 for internal view of junction box.

Note: For AC Units with DIN Rail, Terminals 10, 11 & 12 are Earth terminals.

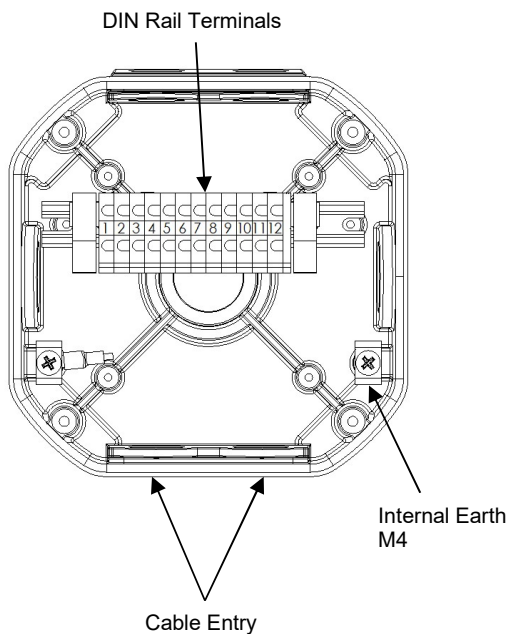


Fig. 3: Junction Box

13) AC Wiring

13.1 AC Wiring Diagram

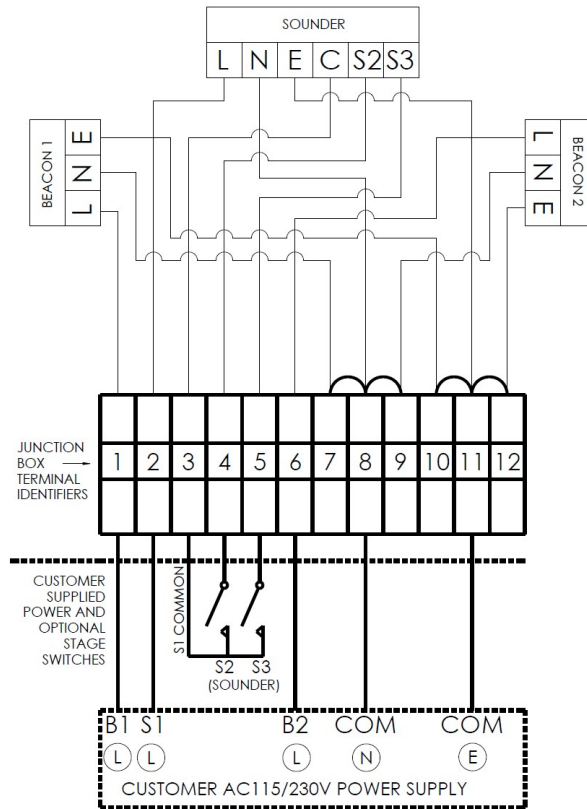


Fig. 4: D2x4 AC Simplified Block Diagram

14) DC Wiring

14.1 DC Wiring Diagram – Xenon Beacons

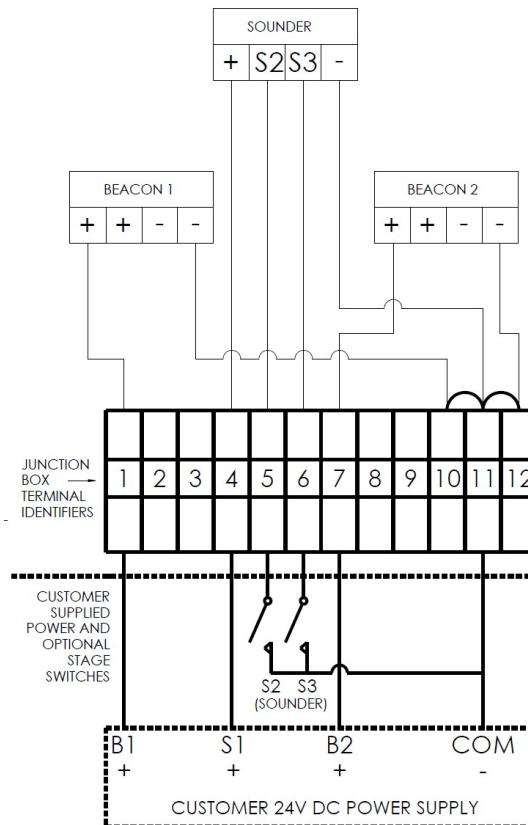


Fig. 5a: D2x4 DC Xenon Simplified Block Diagram

14.2 DC Wiring Diagram – LED Beacons

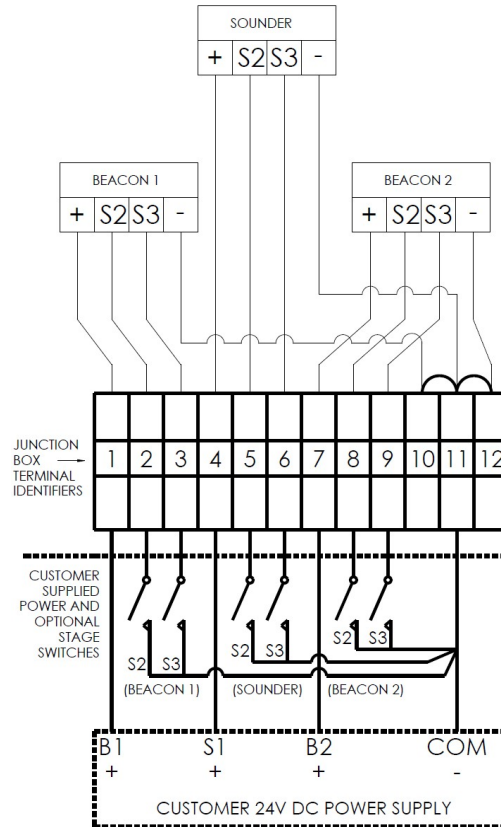


Fig. 5b: D2xC4
DC LED
Simplified Block
Diagram

See also Schematic Document D214-06-001

For units with product option 'W', please see special wiring schematic supplied with the unit documentation.

15) Interchangeable & Spare Parts

The Beacon lens cover is interchangeable, contact E2S Ltd for a replacement lens cover available in various colours.

To change the lens cover, unscrew the 4-off M5 posi pan head screws, spring and flat washers using a screwdriver. Remove the wire guard and replace the old lens cover with the new lens cover.

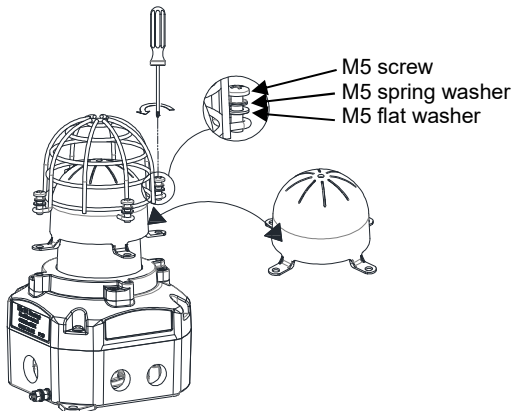


Fig. 6 Replacement of beacon lens cover

16) Maintenance, Overhaul and Repair

Please see individual product instruction manual. See Table 1 for Instruction Manual Document Number.

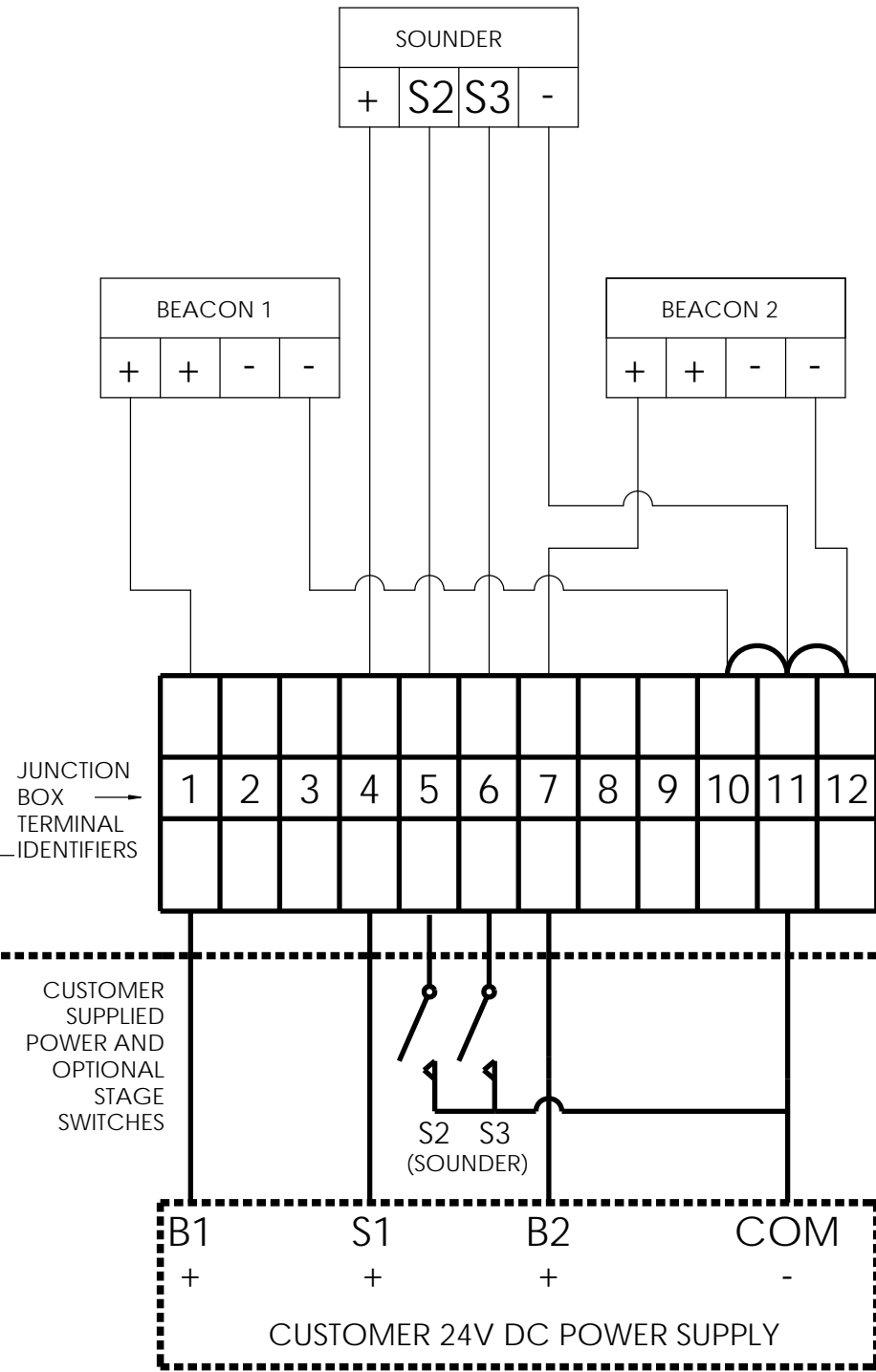
E2S PART NO.
D2xC4[J1][XX][XX]S1

DESCRIPTION
D2xC4 ALARM BAR

DATA REFERENCE
1-35-030

ISSUE	MOD No.	REASON - INITIAL - DATE
1		Introduction DAH 19/09/2019

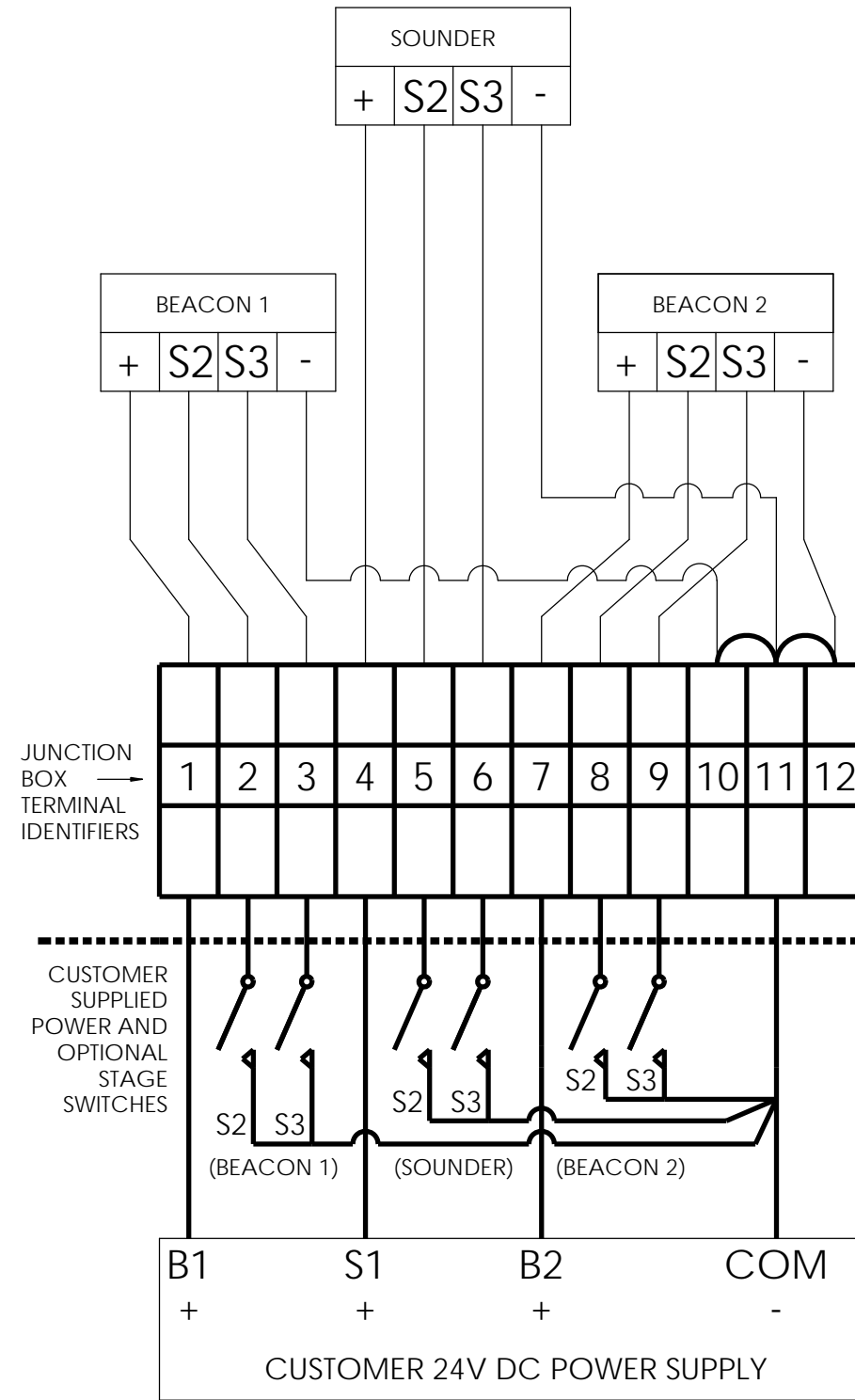
ALARM BAR WITH DC XENON BEACONS



Legend			
Abbreviation	Description	Terminal	
B1 +	BEACON 1 POSITIVE	1	
S1 +	SOUNDER POSITIVE	4	
Optional	S2	SOUNDER STAGE 2 SWITCH	5
	S3	SOUNDER STAGE 3 SWITCH	6
B2 +	BEACON 2 POSITIVE	7	
COM -	COMMON NEGATIVE	10, 11 OR 12	

Note:
All switches shown
to be supplied by
customer

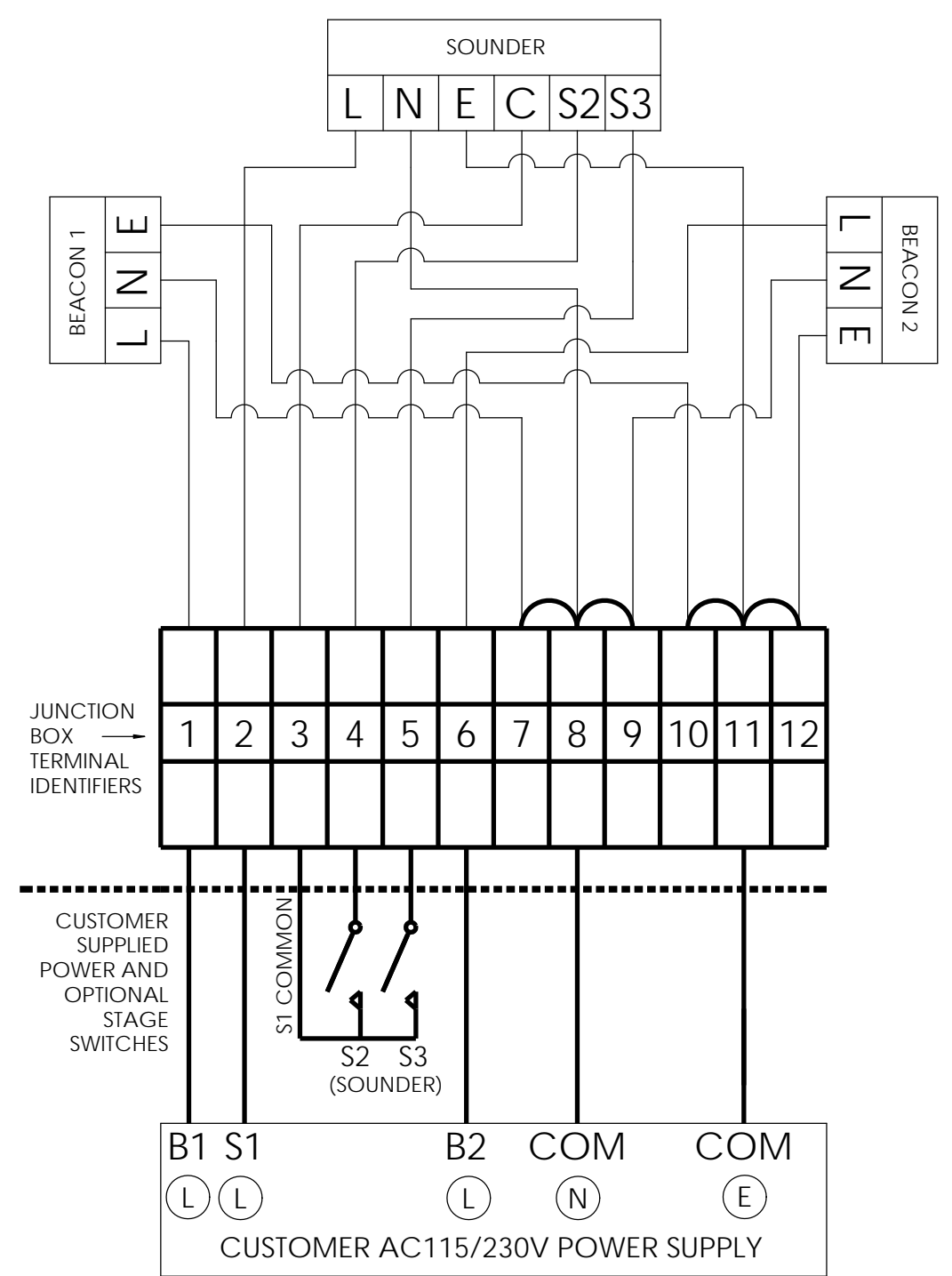
ALARM BAR WITH DC LED BEACONS



Legend			
Abbreviation	Description	Terminal	
B1 +	BEACON 1 POSITIVE	1	
Optional	S2	BEACON 1 STAGE 2 SWITCH	2
	S3	BEACON 1 STAGE 3 SWITCH	3
S1 +	SOUNDER POSITIVE	4	
Optional	S2	SOUNDER STAGE 2 SWITCH	5
	S3	SOUNDER STAGE 3 SWITCH	6
B2 +	BEACON 2 POSITIVE	7	
Optional	S2	BEACON 2 STAGE 2 SWITCH	8
	S3	BEACON 2 STAGE 3 SWITCH	9
COM -	COMMON NEGATIVE	10, 11 OR 12	

Note:
All switches shown
to be supplied by
customer

ALARM BAR WITH AC SUPPLY (ALL BEACON TYPES)



Legend			
Abbreviation	Description	Terminal	
B1 (L)	BEACON 1 LIVE	1	
S1 (L)	SOUNDER LIVE	2	
Optional	S1 COMMON	SOUNDER COMMON	3
	S2	SOUNDER STAGE 2 SWITCH	4
	S3	SOUNDER STAGE 3 SWITCH	5
B2 (L)	BEACON 2 LIVE	6	
COM (N)	COMMON NEUTRAL	7, 8 OR 9	
COM (E)	COMMON EARTH	10, 11 OR 12	

Note:
All switches shown
to be supplied by
customer

EU Declaration of Conformity



Manufacturer: European Safety Systems Ltd.
Impress House, Mansell Road, Acton
London, W3 7QH
United Kingdom

Authorised Representative: E2S Warnsignaltechnik UG
Charlottenstrasse 45-51
72764 Reutlingen
Germany

Equipment Type: D2xC4

Directive 2014/34/EU: Equipment and Protective Systems for use in Potentially Explosive Atmospheres (ATEX)

For D2xS1 Sounder, D2xB1 beacon and D2xJ1 Junction Box used in assembly of D2xC4

Notified Body for type Examination Certificate:	UL International Demko A/S Notified Body No.: 0539 Borupvang 5A, 2750 Ballerup, Denmark
Type Examination Certificate:	DEMKO 14 ATEX 478693904X
Notified Body for Quality Assurance Notification / Conformity to EU-type based on quality assurance of the production process (Module D):	Sira Certification Service Notified Body No.: 0518 Unit 6, Hawarden Industrial Park, Hawarden, Deeside, CH5 3US, UK
Quality Assurance Notification (Module D):	SIRA 05 ATEX M342
Provisions fulfilled by the equipment:	II 3G Ex nA IIC T6/T4/T3/T2/T1 Gc II 3D Ex tc IIIC T55/75/90/95/110°C Db IP6X Dust Protection to EN60079-0 / EN60079-31
Standards applied:	EN 60079-0: 2012 + A1: 2013 EN 60079-15: 2010 EN 60079-31: 2014

Directive 2014/30/EU: Electromagnetic Compatibility Directive (EMC)

Standards applied:	EN 61000-6-1:2007 EN 61000-6-2:2005 EN 61000-6-3:2007 / A1:2011 / AC: 2012 EN 61000-6-4:2007 / A1: 2011
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Directive 2011/65/EU: Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

The product and all the components contained within it are in accordance with the restriction of the use of hazardous substances in electrical and electronic equipment, including amendment by Directive 2015/863/EU.

Regulation (EC) 1907/2006: Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

The product and all the components contained within it are free from substances of very high concern.

Other Standards and Regulations

EN 60529:1992+A2:2013 - Degrees of protection provided by enclosures (IP code) – enclosure rated IP66

On behalf of European Safety Systems Ltd., I declare that, on the date the equipment accompanied by this declaration is placed on the market, the equipment conforms with all technical and regulatory requirements of the above listed directives, regulations and standards.

This Declaration is issued under the sole responsibility of the manufacturer.

A handwritten signature in black ink, appearing to read 'Martin Streetz', written over a light blue circular stamp.

Martin Streetz
Quality Assurance Manager

Document No.: DC-075_Issue_C
Date and Place of Issue: London, 23/12/2020