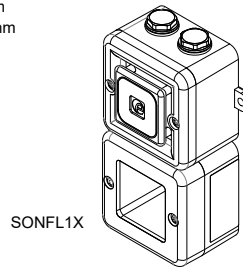


SONFL1X
Combined Sounder & Xenon Beacon

10 Selectable Tones
2 Stages (24V dc only)
5J Xenon Flash Tube
Three Modes: Flashing 1Hz (AC & DC)
Flashing 1.5Hz and Double Strike (DC Units Only)
1Hz Flashing mode CPR / VdS approved
24Vdc version CPR / VdS / MED approved
CE, UKCA, EAC Approved
UL / cULus Approved
CPR / MED Approval (24V dc Only)
IP Rating: Type 3R / 13, IP66

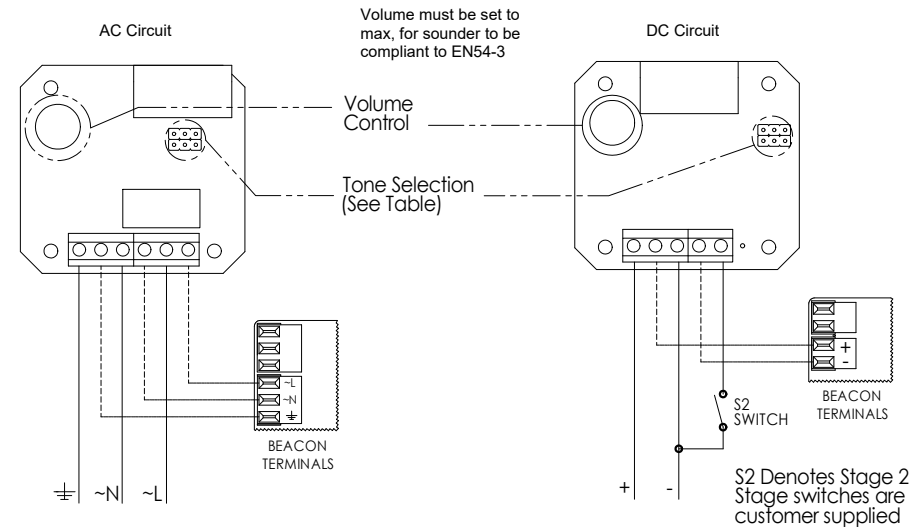


Dimensions: 172 x 86 x 83mm
Cable Entry: 2-off M20 x 1.5mm
Temp: -40°C to +55°C
Unit weight: 0.46Kg



SONFL1X

See D242-06-501 - Schematic Wiring



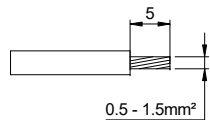
Model No.	Nominal Voltage	Voltage Range	Horn Nom. Current	Beacon Nom. Current	Sound Pressure Level dB(A)	
					Max	Nominal
SONFL1XDC012...[X]/[Y]	12V dc	10-14V dc	25mA*	500mA	100.0 @ 1m 91.0 @ 3m	99.0 @ 1m 90.0 @ 3m
SONFL1XDC024...[X]/[Y]	24V dc	20-28V dc	25mA*	250mA		
SONFL1XAC024...[X]/[Y]	24V ac 50/60Hz	+/- 10%	40mA	300mA		
SONFL1XAC115...[X]/[Y]	115V ac 50/60Hz	+/- 10%	27mA	70mA		
SONFL1XAC230...[X]/[Y]	230V ac 50/60Hz	+/- 10%	39mA	35mA		

*Current at nominal voltage on Tone 2

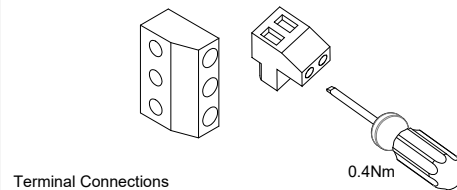
[X] Denotes Housing Colour: R = Red; G = Grey; W = White

[Y] Denotes Lens Colour: A = Amber; B = Blue; C = Clear; G = Green; M = Magenta; R = Red; Y = Yellow

Note: CPR Approved Units only available with Clear Lens



Use suitable conduit or cable glands with suitable IP or type rating



Terminal Connections

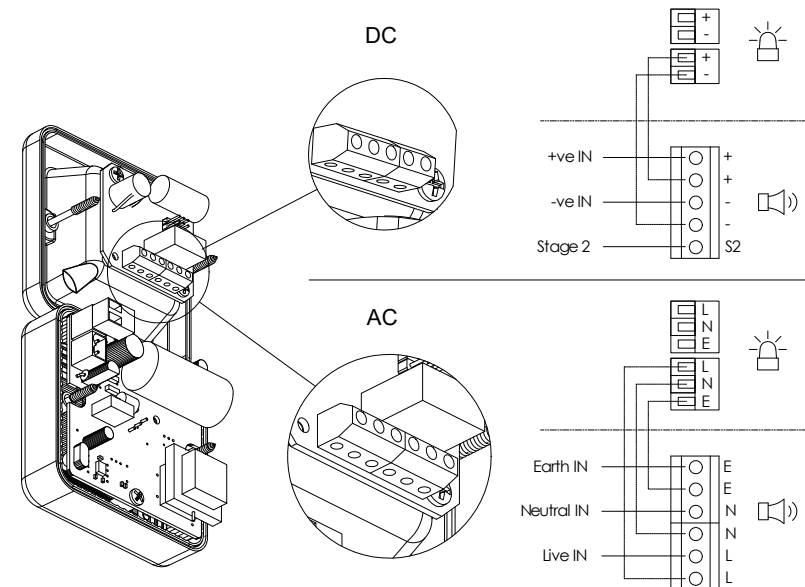
0.4Nm

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.

No liability is accepted for any consequences of the use of this document. The technical specification of this unit is subject to change without notice due to our policy of continual product development. All dimensions/weights are approximate. This unit is sold subject to our standard conditions of sale, a copy of which is available on request.



INSTRUCTION & SERVICE MANUAL

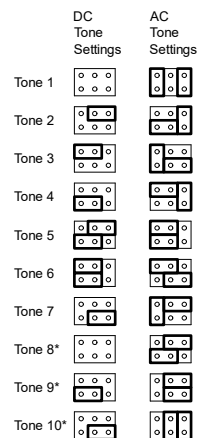
SONFL1X Range - Alarm Horn & Xenon Strobe Beacon

115V AC and 230V AC Tone Table

Stage 1	Tone Description		
1	800/1000 Hz @ 0.25 sec Alternating BS5839 Alarm Tone	99dB(A) @1m	
2	500/1200 Hz @ 0.3 Hz 0.5 sec Slow Whoop NEN 2575:2000	100dB(A) @1m	
3	Sawtooth 1200/500 Hz @ 1 Hz - DIN / PFEER P.T.A.P	99dB(A) @1m	
4	544Hz (100mS)/440 Hz (400mS) AFNOR NF S 32-001	97dB(A) @1m	
5	Continuous 1000 Hz - PFEER toxic gas	100dB(A) @1m	
6	Simulated Bell Sound	95dB(A) @1m	
7	800/1000 Hz @ 7 Hz Sweeping	99dB(A) @1m	
8	2400/2900 Hz 50 Hz Sweeping	100dB(A) @1m	
9	420 Hz @ 0.625 sec Australian Alert	97dB(A) @1m	
10	500-1200 Hz 3.75 sec / 0.25 sec Australian Evacuation	100dB(A) @1m	

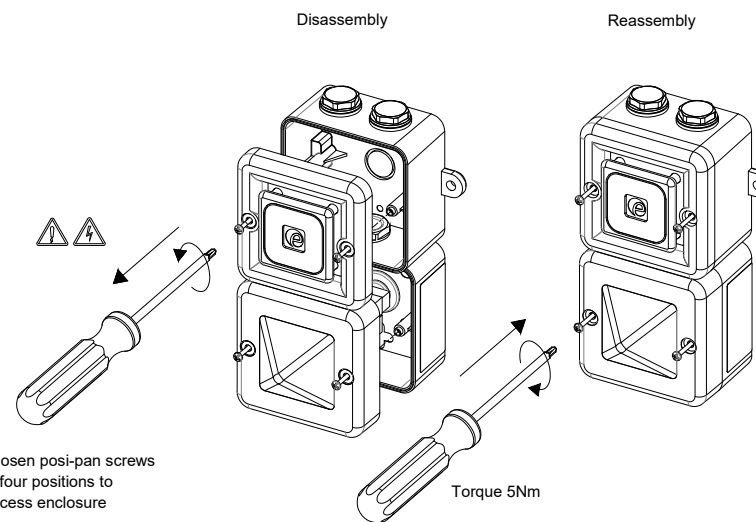
12V DC and 24V DC Tone Table

Stage 1	Tone Description	SONF1 dB@ 1m		Stage 2
1	800/1000 Hz @ 0.25 sec Alternating BS5839 Alarm Tone	99dB(A) @1m		8
2	500/1200 Hz @ 0.3 Hz 0.5 sec Slow Whoop NEN 2575:2000	100dB(A) @1m		1
3	Sawtooth 1200/500 Hz @ 1 Hz - DIN / PFEER P.T.A.P	99dB(A) @1m		8
4	544Hz (100mS)/440 Hz (400mS) AFNOR NF S 32-001	97dB(A) @1m		9
5	Simulated Bell Sound	95dB(A) @1m		1
6	Sweeping 800/1000 Hz @ 7 Hz Sweeping	99dB(A) @1m		8
7	500-1200 Hz 3.75 sec / 0.25 sec Australian Evacuation	100dB(A) @1m		10
8	Continuous 1000 Hz - PFEER toxic gas	100dB(A) @1m		-
9	Continuous 554 Hz	97dB(A) @1m		-
10	420 Hz @ 0.625 sec Australian Alert	97dB(A) @1m		-



*To set tones 8, 9 & 10 as first stage on DC, connect terminal 'S2' to '-' terminal

Access to Enclosure



Loosen posi-pan screws in four positions to access enclosure

Torque 5Nm

NOTE: Please check factory settings and ensure the correct alarm tone is selected for your country or application

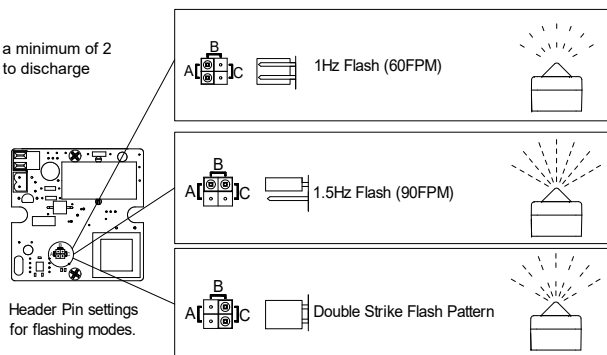
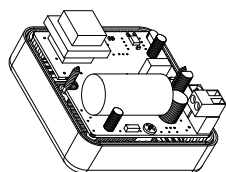
Tone Selection / Header Pin Setting - Header pin settings are shown in the tone selection table. The links covered by the jumper are shown with a black rectangle.

Only tones 1, 2, 3, 4, 8 & 9 (DC) have been tested to EN54-3 and are compliant with the Construction Products Regulation 305/2011.

Beacon Flash Settings

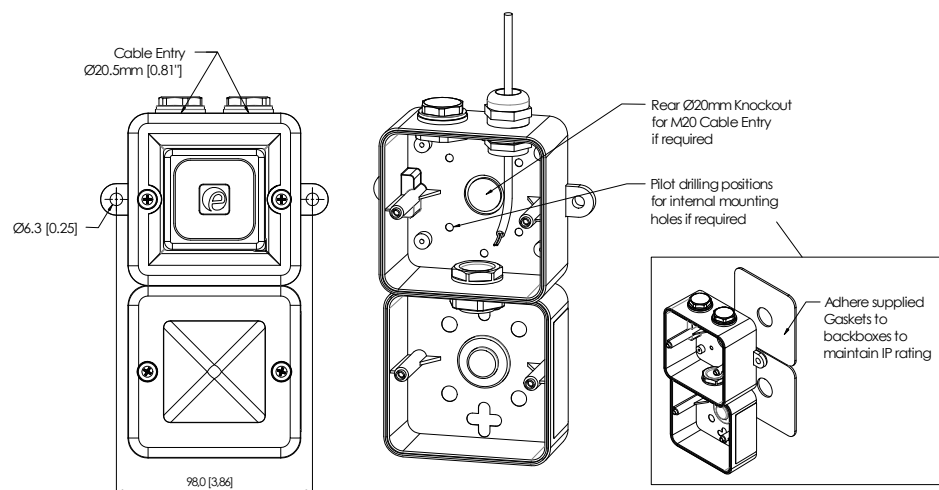


Attention: On strobe beacons allow a minimum of 2 minutes for hazardous high voltage to discharge from unit



Header Pin settings for flashing modes.

Mounting See D242-05-501



Rear Ø20mm Knockout for M20 Cable Entry if required

Pilot drilling positions for internal mounting holes if required

Adhere supplied Gaskets to backboxes to maintain IP rating

INSTRUCTION & SERVICE MANUAL
SONFL1X Range - Alarm Horn & Xenon Strobe Beacon



Construction Product Regulation

- SONFL1X is compliant to EN54-3:2001+A1+A2 and EN54-23:2010
- Alarm devices – Sounder for use in fire detection and fire alarm systems installed in and around buildings
- Type 4 / 4X / 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

Order Code: SONFL1X
 Voltage Range: 20-28Vdc
 Nominal Voltage: 24Vdc
 Max Current: P: 25mA @28Vdc;
 DOP: DP-2821-CPR-0285
 UKCA Cert: 0843-CPR-1339
 EU Cert: 2821-CPR-0285



Approved Tones for EN54-3 Applications:

- (Alternating Tone) 800/1000Hz @ 0.25s Alternating Tone 1
- (Rising Tone) 500/1200Hz @ 0.3Hz 0.5s Tone 2
- (Fainting Tone) 1200/500Hz @ 1Hz Tone 3
- (Alternating Tone) 544Hz(100mS)/440Hz (400mS) Tone 4
- (Continuous Tone) 1000Hz Tone 8
- (Continuous Tone) 544Hz Tone 9

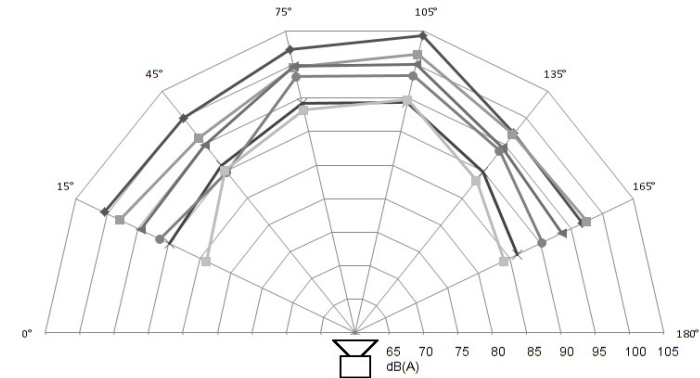
SONFL1XDC024 @ 1m

Angle	Horizontal Sound Output Max Voltage (30 Vdc) LAFmax,T dB(A)						Horizontal Sound Output Min Voltage (18 Vdc) LAFmax,T dB(A)					
	Tone 1	Tone 2	Tone 3	Tone 4	Tone 8	Tone 9	Tone 1	Tone 2	Tone 3	Tone 4	Tone 8	Tone 9
15°	102.7	99.9	97.3	91.2	96.9	86.9	100.4	97.9	94.5	89.8	91.4	83.9
45°	101.5	100.3	97.2	92.6	94.6	92.1	99.9	96.3	94.9	91.1	89.9	90.2
75°	104.3	105.0	102.8	94.9	101.0	94.1	102.2	99.6	99.7	94.2	98.3	93.3
105°	108.7	104.4	101.9	95.4	100.7	96.4	104.3	101.5	100.0	94.3	98.4	94.8
135°	100.9	100.6	96.9	90.9	96.1	91.3	97.1	96.9	94.4	89.9	93.9	88.4
165°	99.2	98.6	96.4	87.6	95.9	88.0	96.7	97.5	93.5	86.3	90.3	84.1
Angle	Vertical Sound Output Max Voltage (30 Vdc) LAFmax,T dB(A)						Vertical Sound Output Min Voltage (18 Vdc) LAFmax,T dB(A)					
	Tone 1	Tone 2	Tone 3	Tone 4	Tone 8	Tone 9	Tone 1	Tone 2	Tone 3	Tone 4	Tone 8	Tone 9
15°	102.1	101.1	96.4	89.7	94.0	82.8	99.0	96.1	93.1	88.3	90.5	82.0
45°	97.4	99.6	96.9	91.4	92.3	91.6	98.6	97.3	93.8	88.9	91.4	90.0
75°	101.0	103.7	102.8	94.6	102.4	96.9	101.2	100.0	97.6	93.7	99.8	94.0
105°	106.6	103.9	101.8	95.7	101.7	96.0	104.0	103.4	98.6	94.0	97.4	92.2
135°	100.1	100.9	95.5	90.3	95.3	91.2	96.3	95.5	92.9	87.9	92.6	88.9
165°	98.0	97.0	96.7	84.9	97.2	86.7	94.8	94.4	91.5	82.7	93.3	85.6

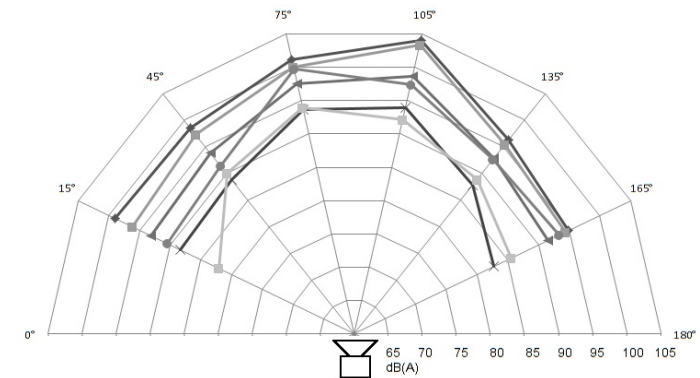
SONFL1XDC024 SOUND PRESSURE LEVEL OUTPUT

(TESTING AT MINIMUM VOLTAGE OF 18V DC. ALL READINGS ARE IN dB(A) @ 1m)

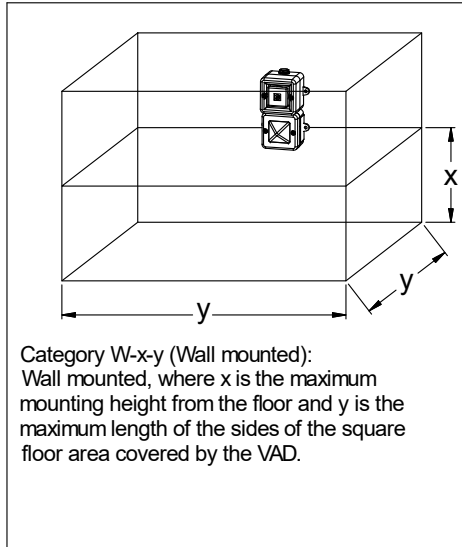
SONFL1XDC024 HORIZONTAL POLAR PLOT



SONFL1XDC024 VERTICAL POLAR PLOT



SONFL1XDC024 LIGHT OUTPUT



Note: CPR aproved 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
SONFL1XDC024...[x]/C	W-2.4-4.8	7W
	V=55.3m³	

The units comply with Solas 74 Chapter II-2, Regulation 7 & Chapter X, Regulation 3 for installation on ships in the following locations:
 Temperature: C (Location -25° to +55°C)
 Vibration: A (General Applications)
 EMC: A (General Power Distribution Zone)
 Enclosure: IP33C

