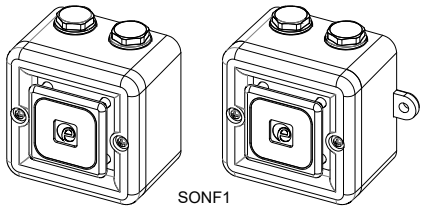
INSTRUCTION & SERVICE MANUAL
SONF1 Range - Alarm Horn Sounder

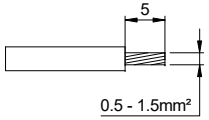
- 10 selectable Tones
- 2 Stages (24vdc Only)
- -40°C to +55°C (-40°F to +131°F)
- 0.30Kg (0.66lbs)
- CE, UKCA, EAC & Russian Maritime Register Approved
- UL / cULus Approved for General Signalling UL464A
- CPR / MED Approved (24vdc Only)
- IP rating : Type 3R / 13 / IP66



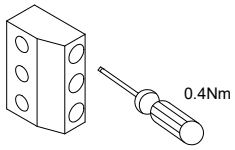
SONF1

Model No.	Nominal Voltage	Voltage Range	Nominal Current	Sound Pressure Level dB(A)	
				Max	Nominal
SONF1DC024[X]…[Y]	24V dc	10-30V dc	25mA*	100.0 @ 1m 91.0 @ 3m	99.0 @ 1m 90.0 @ 3m
SONF1AC024[X]…[Y]	24V ac 50/60Hz	+/- 10%	40mA		
SONF1AC115[X]…[Y]	115V ac 50/60Hz	+/- 10%	27mA		
SONF1AC230[X]…[Y]	230V ac 50/60Hz	+/- 10%	39mA		

*Current at nominal voltage on Tone 2
[X] Denotes Backbox Type: S = Sonora; M = Multi (with Lugs)
[Y] Denotes Housing Colour: R = Red; G = Grey; W = White



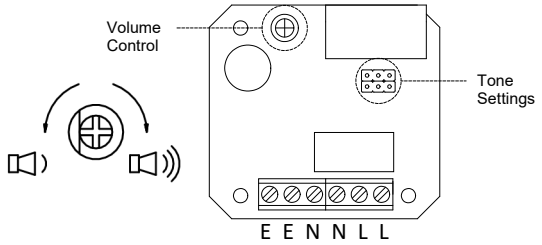
Use suitable conduit or cable glands with suitable IP or type rating



Terminal Connections

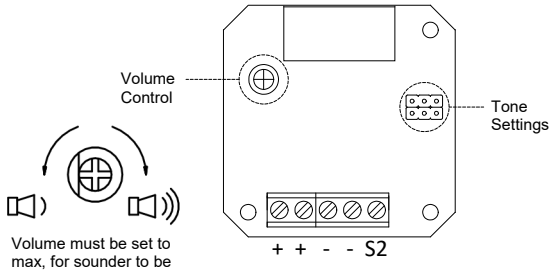
AC

See D242-06-001



DC

See D242-06-001

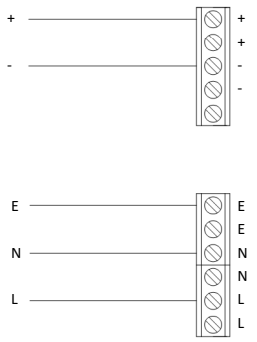


Volume must be set to max, for sounder to be compliant to EN54-3

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 eletricista 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.

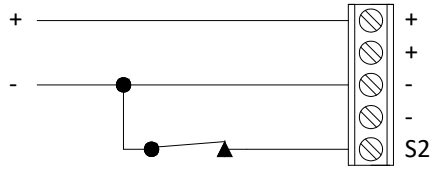
AC & DC Single Stage Operation



DC Two Stage Operation

Stage 1: Apply power +ve and –ve

Stage 2: Apply power +ve and –ve and connect S2 to –ve



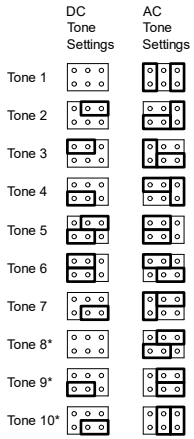
Note: Stage 2 is not VdS Approved

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	

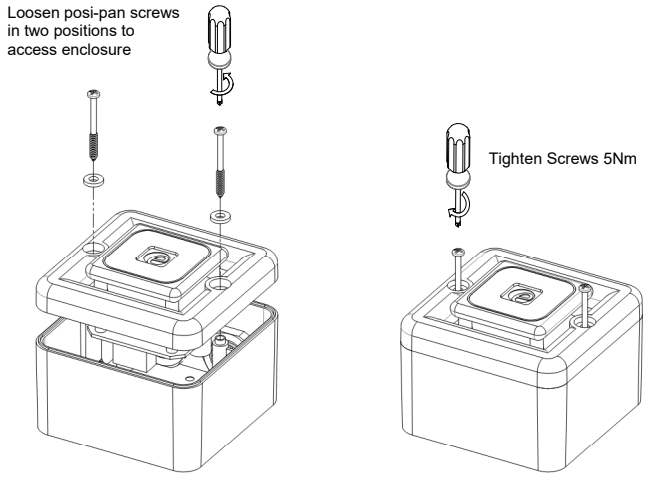
24V DC Tone Table

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



VdS / CPR Tone Table

SONF1 24vdc (18-30vdc) unit is CPR compliant
EN54-3 Type B IP55

The tones listed below have been tested to EN54-3 and are compliant with the Construction Products Regulation 305/2011.

Volume control must be turned up to max to be compliant

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

Stage 1	Tone Description	SONF1 dB@ 1m	
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	
8	Continuous 1000 Hz - PFEER toxic gas	100dB(A) @1m	
9	Continuous 554 Hz	97dB(A) @1m	

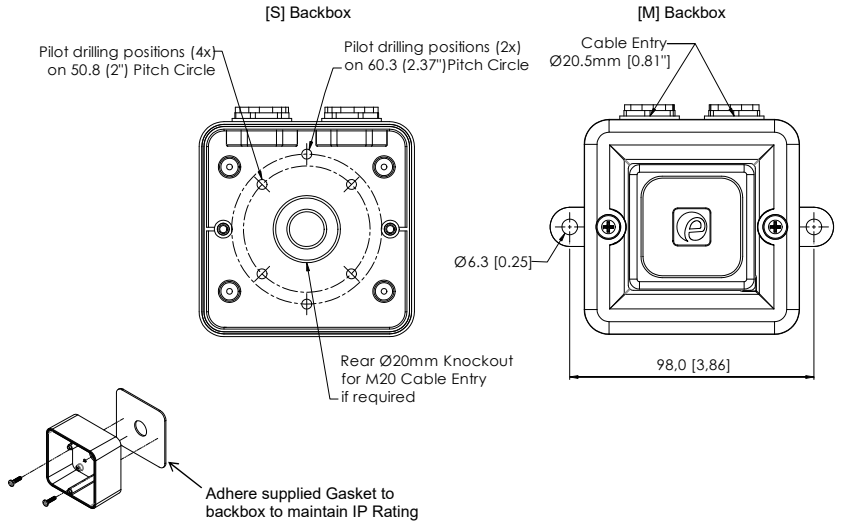
The units comply with Solas 74 Chapter II-2, Regulation 7 & Chapter X, Regulation 3 for installation on ships in the following locations:

Temperature: C (Location -25° to +55°C)
Vibration: A (General Applications)
EMC: A (General Power Distribution Zone)
Enclosure: IP33C

0575/2023

Mounting Positions

See D242-05-001



Construction Product Regulation

- SONF1 is compliant to EN54-3:2001+A1+A2
- 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
- Cable Glands must be suitably sealed and meet minimum IP33 for EN54-3 applications
- Storage Temperature: -40°C to +70°C
- Maintenance – None
- Mounting - Units can be mounted using the 2-off ø9mm holes in the mounting lugs or through the back of the housing using the supplied gasket seal.

Order Code: SONF1
Voltage Range: 18-30Vdc
Nominal Voltage: 24Vdc
Max Current: P: 25mA @30Vdc;
DOP: DP-2821-CPR-0284
UKCA Cert: 0843-CPR-1338
EU Cert: 2821-CPR-0284

CE 24 2821 UKCA 24 0843

Approved Tones for EN54-3 Applications:

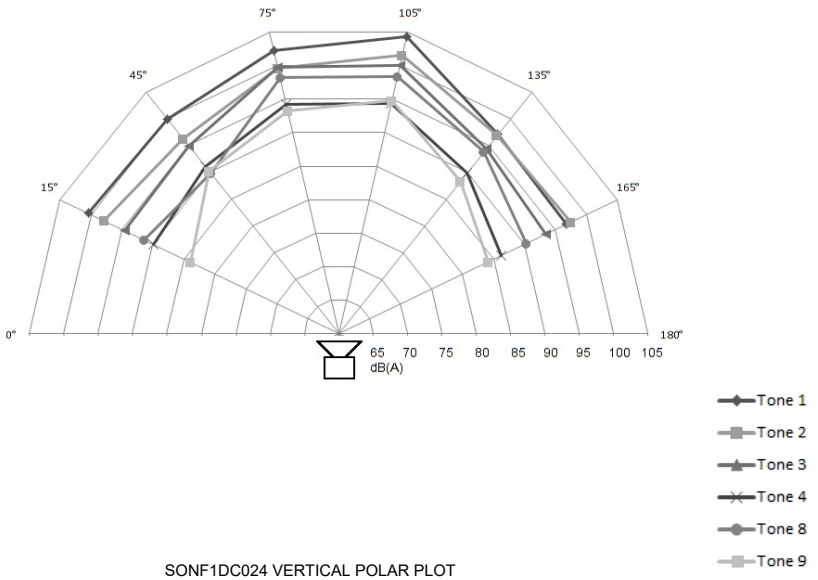
•(Alternating Tone) 800/1000Hz @ 0.25s Alternating Tone 1
•(Rising Tone) 500/1200Hz @ 0.3Hz 0.5s Tone 2
•(Fainting Tone) 1200/500Hz @ 1Hz Tone 3
•(Alternating Tone) 544Hz(100mS)/440Hz (400mS) Tone 4
•(Continuous Tone) 1000Hz Tone 8
•(Continuous Tone) 544Hz Tone 9

SONF1DC024 @ 1m												
	Horizontal Sound Output Max Voltage (30 Vdc) LAFmax,T dB(A)						Horizontal Sound Output Min Voltage (18 Vdc) LAFmax,T dB(A)					
Angle	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
	Vertical Sound Output Max Voltage (30 Vdc) LAFmax,T dB(A)						Vertical Sound Output Min Voltage (18 Vdc) LAFmax,T dB(A)					
Angle	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

SONF1DC024 SOUND PRESSURE LEVEL OUTPUT

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

SONFL1XDC024 HORIZONTAL POLAR PLOT



SONF1DC024 VERTICAL POLAR PLOT

