RS PRO

MANUALS

LANGUAGE SELECTION

ITALIANO

ENGLISH

FRANÇAIS

DEUTSCH

ESPAÑOL

PORTUGUÊS

12/2023 Ref 10-060-2109-001

SE120

ISTRUZIONI DI INSTALLAZIONE E UTILIZZO

IT

CERTIFICAZIONI		
UK CA	CE	

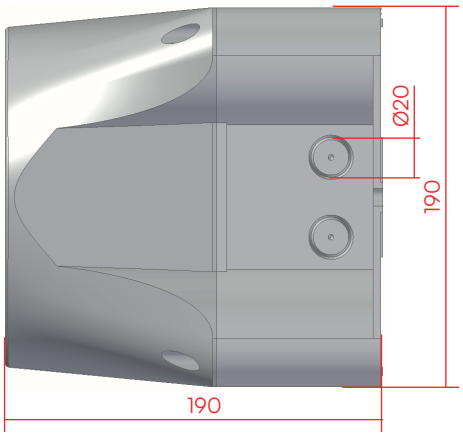
AT	BE	CY	DK	DE	EE	FR	EL	IT	LU	NO	PT
SI	ES	SE	CH	NL	BG	IE	HU	MT	IS	LI	TR

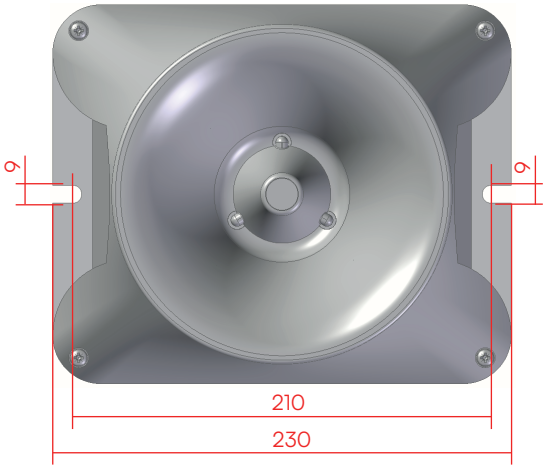
Il fabbricante, RS Components Ltd., dichiara che il tipo di apparecchiatura radio SE120 è conforme alla direttiva 2014/53/UE.

ISTRUZIONI DI SICUREZZA

⚠	**TOGLIERE TENSIONE PRIMA DI INTERVENIRE SUL PRODOTTO**
⚠	**L'INSTALLAZIONE DEVE ESSERE EFFETTUATA SOLO DA PERSONALE SPECIALIZZATO**
⚠	**NON SMALTIRE COME RIFIUTO URBANO**
⚠	**L'ESPOSIZIONE ALLA RADIOFREQUENZA DEL DISPOSITIVO NFC NON E' CONSIDERATA DANNOSA PER IL CORPO UMANO**

DIMENSIONALI





DATI TECNICI

	SE120 LT						SE120 HT	
V ⎓	12	24	-	-	48	60	-	-
V ∼	-	-	12	24	-	-	120	240
mA	400	800	600	110	1300	1400	280	150

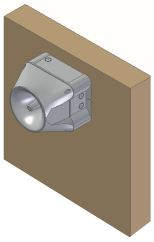
T	-30°C +50°C	IP	66 69K

INSTALLAZIONE

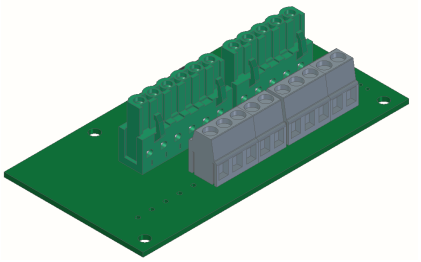
A) Separare le due parti della SE120 svitando le 4 viti poste ai lati
B) Fissare la base alla parete e cablarla alla rete
C) Richiudere la SE120 utilizzando una cacciavite con impronta PZ2 ed una coppia di chiusura di 2,5N (la parte anteriore della SE120 si connette automaticamente alla base quando viene montata)

N.B. La parte anteriore è provvista di sistema antisbaglio per la corretta installazione
N.B. Per l'ingresso dei cavi utilizzare pressacavi M20 certificati UL con protezione minima IP66/69K
N.B. Per forare i prefori della base utilizzare una fresa a tazza Ø20mm

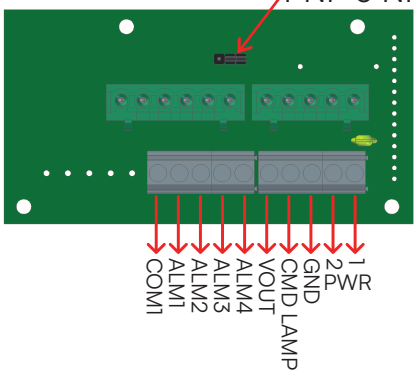
⚠ **Per un corretto funzionamento del dispositivo fissarlo su una parete verticale come indicato nel disegno**



CABLAGGIO



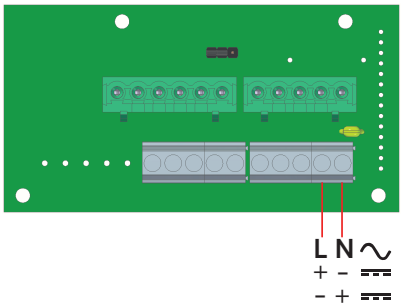
Jumper da spostare per connessione PNP o NPN (versione DC)



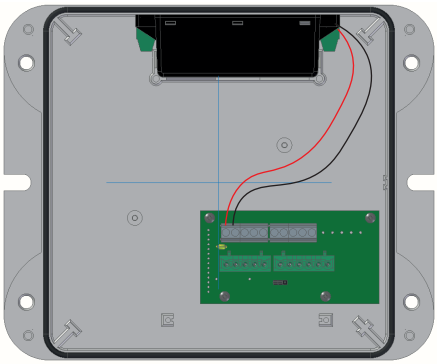
1 PWR: Power
2 PWR: Power
GND: Ground
CMD LAMP: Comando luce
VOUT: Aux voltage
ALM4: Alarm n°4
ALM3: Alarm n°3
ALM2: Alarm n°2
ALM1: Alarm n°1
COM: Common

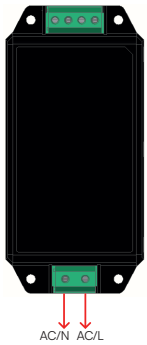
ALIMENTAZIONE

12/24Vac - 12/60Vdc



100/240Vac

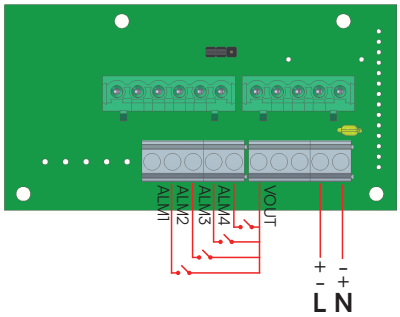




⚠ **Sulla linea di alimentazione usare fusibili ritardati dimensionati a seconda della tensione.**

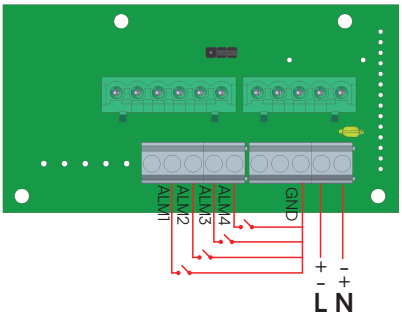
ATTIVAZIONE DEGLI ALLARMI

PNP



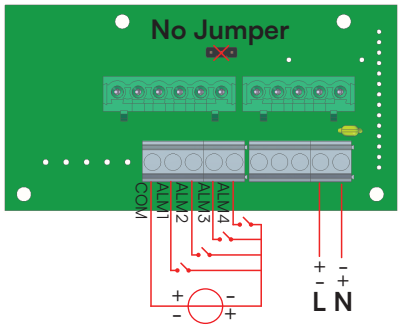
⚠ Per l'attivazione degli allarmi in modalità PNP utilizzare il pin dedicato (VOUT) e non il positivo dell'alimentazione

NPN



⚠ Per l'attivazione degli allarmi in modalità NPN utilizzare il pin dedicato (GND) e non la massa dell'alimentazione

ALIMENTAZIONE ESTERNA



⚠ ALM1 ha priorità su ALM2, ALM3 e ALM4
ALM2 ha priorità su ALM3 e ALM4
ALM3 ha priorità su ALM4

1 PWR: Power
2 PWR: Power
GND: Ground
CMD LAMP: Comando luce
VOUT: Aux voltage
ALM4: Alarm n°4
ALM3: Alarm n°3
ALM2: Alarm n°2
ALM1: Alarm n°1
COM: Common

L'impostazione dei suoni e del volume può essere fatta:

- Tramite dip switch presente sul circuito
- Collegandosi alla SE 120 attraverso l'NFC, utilizzando l'applicazione dedicata da installare sul cellulare

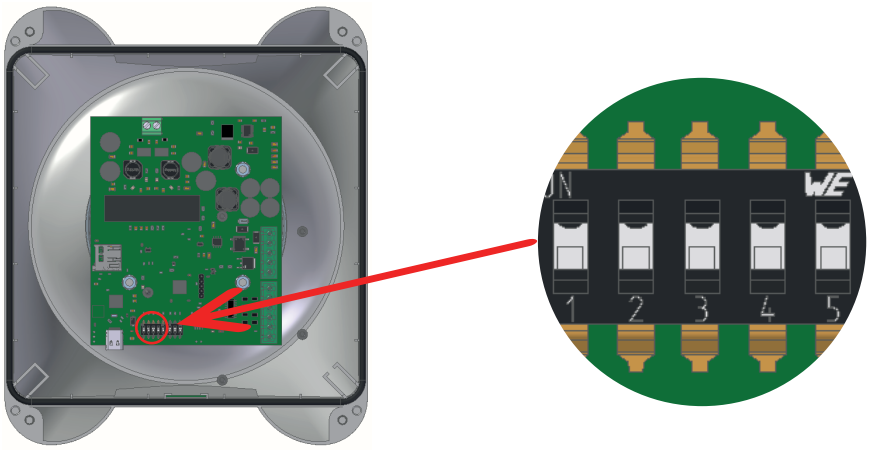
Solo per versione PRO:

- Collegandosi alla SE 120 attraverso la porta USB, utilizzando il software dedicato da installare sul PC

IMPOSTAZIONE TRAMITE DIP-SWITCH

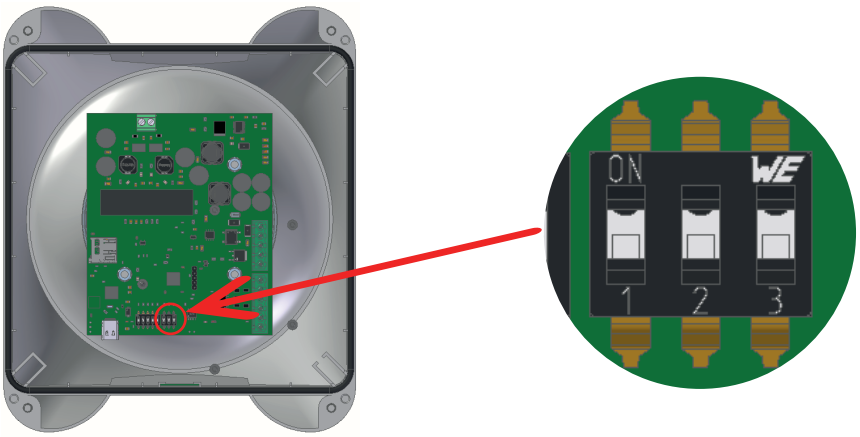
Tramite il dip switch, evidenziato nell'immagine sotto, è possibile scegliere tra 29 combinazioni di suoni.

⚠ **Per la lista dei suoni e le possibili combinazioni vedere l'appendice alla fine del presente manuale**



Tramite il dip switch, evidenziato nell'immagine sotto, è possibile scegliere tra 8 livelli di volume differenti.

Livello volume	Dip Switch			
Livello 1	0	0	0	MIN
Livello 2	0	0	1	
Livello 3	0	1	0	
Livello 4	0	1	1	
Livello 5	1	0	0	
Livello 6	1	0	1	
Livello 7	1	1	0	
Livello 8	1	1	1	MAX



⚠ **L'incremento del volume per i livelli 7 e 8 è molto limitato e potrebbe quindi non essere percepito dall'utilizzatore**

IMPOSTAZIONE TRAMITE APPLICAZIONE

Tramite l'applicazione "MySirena" da installare su dispositivi con sistema iOS e Android, è possibile impostare il suono e il volume desiderato per ogni canale.
L'applicazione è scaricabile dai link:
iOS: https://apps.apple.com/app/mysirena/id1671784900
Android: https://play.google.com/store/apps/details?id=com.mysirena.app&gl=IT
oppure tramite il QR qui sotto.
N.B.: l'applicazione può essere utilizzata solo con telefoni con integrato un lettore NFC.
Per poter utilizzare l'applicazione occorre verificare che il dip switch sia nella configurazione che abilita l'NFC (0 0 0 0 0), come indicato anche nella tabella suoni in appendice e non occorre che la sirena sia alimentata.
Occorre quindi aprire l'applicazione seguendo le istruzioni indicate ed appoggiare il telefono dove è presente la scritta NFC, questo attiverà la lettura della configurazione attualmente presente sulla sirena e si potranno quindi scegliere i suoni ed i volumi desiderati.

⚠ **E' possibile vedere i suoni disponibili in appendice nella tabella suoni.**

⚠ **NFC Freq.:13,56Mhz**

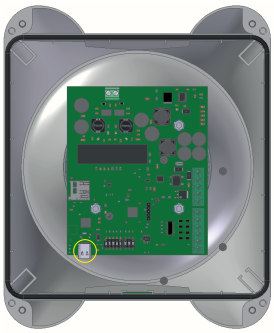
N.B.: All'interno dell'applicazione è presente la guida per poterla utilizzare correttamente.

MySirena

Download on the App Store
GET IT ON Google Play

IMPOSTAZIONE TRAMITE PC (SOLO PER VERSIONI PRO)

Tramite il software dedicato, collegando la sirena al PC tramite la porta USB-C, evidenziata nell'immagine sottostante, è possibile impostare per ogni canale il suono ed il volume desiderato. E' possibile inoltre configurare ogni canale con un suono registrato in formato .wav e .ogg.
Per attivare la porta USB-C occorre verificare che il dip switch sia nella configurazione (0 0 0 0 0), come indicato anche nella tabella suoni in appendice e non occorre che la sirena sia alimentata.
Il software è scaricabile al link:
https://sirena.it/wp-content/uploads/2023/02/MySirena_SE120_Installer.zip



N.B.: All'interno del software è presente la guida per poterla utilizzare correttamente.

⚠ **File audio supportati:**
OGG:
Channels : 1-2
Window size : 64-4096 samples
Sample rate: 48000 Hz
Bit rate : 500 kbit/s
WAV:
8-bit ulaw
8-bit linear PCM
16-bit Linear PCM

SE120

INSTALLATION AND USE INSTRUCTIONS

EN

CERETIFICATIONS		
UK CA	CE	

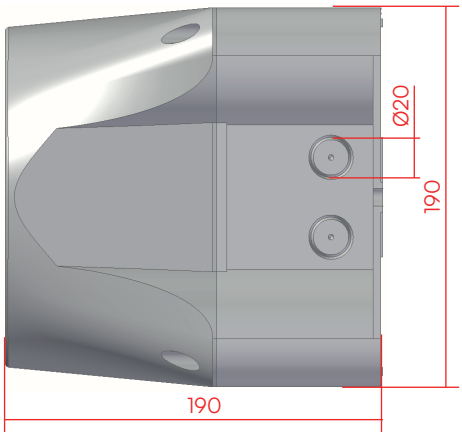
AT	BE	CY	DK	DE	EE	FR	EL	IT	LU	NO	PT
SI	ES	SE	CH	NL	BG	IE	HU	MT	IS	LI	TR

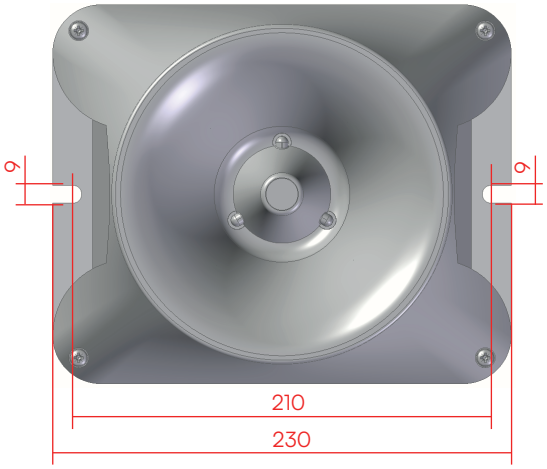
Hereby, RS Components Ltd.. declares that the radio equipment type SE120 is in compliance with Directive 2014/53/EU.

SAFETY INSTRUCTIONS

⚠	DISCONNECT THE VOLTAGE BEFORE WORKING ON THE PRODUCT
⚠	INSTALLATION MUST BE CARRIED OUT BY SPECIALIZED PERSONNEL ONLY
⚠	DO NOT DISPOSE OF AS MUNICIPAL WASTE
⚠	EXPOSURE TO RADIO FREQUENCY FROM THE NFC DEVICE IS NOT CONSIDERED HARMFUL TO THE HUMAN BODY

DIMENSIONS





TECHNICAL DATA

	SE120 LT						SE120 HT	
V ⎓	12	24	-	-	48	60	-	-
V ∿	-	-	12	24	-	-	120	240
mA	400	800	600	110	1300	1400	280	150

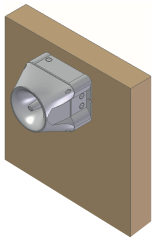
T	-30°C +50°C	IP	66 69K

INSTALLATION

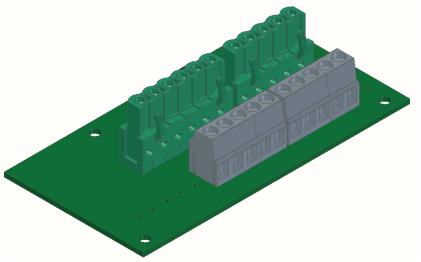
A) Separate the two parts of the SE120 by unscrewing the 4 screws on the sides
B) Fix the base to the wall and wire it to the network
C) Close the SE120 using a PZ2 screwdriver and a closing torque of 2.5N (SE120 front automatically connects to base when mounted)

N.B. The front part is equipped with an anti-mistake system for correct installation
N.B. For cable entry, use UL certified M20 cable glands with minimum protection IP66/69K
N.B. To drill the pre-holes in the base, use a Ø20mm hole cutter

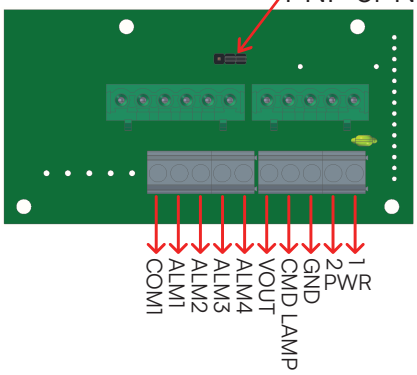
⚠ **For correct functioning of the device fix it on a vertical wall as indicated in the drawing**



WIRING



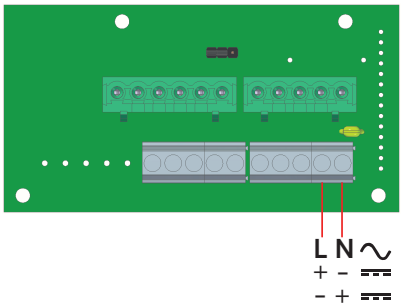
Jumper to move per connection
PNP or NPN (DC version)



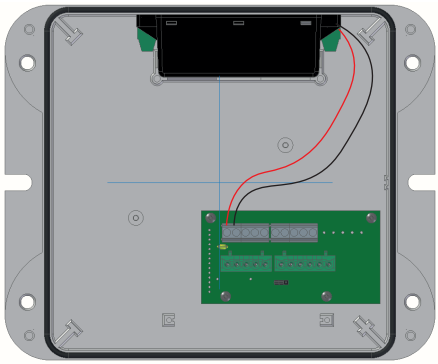
1 PWR: Power
2 PWR: Power
GND: Ground
CMD LAMP: Light command
VOUT: Aux voltage
ALM4: Alarm n°4
ALM3: Alarm n°3
ALM2: Alarm n°2
ALM1: Alarm n°1
COM: Common

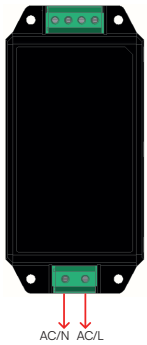
SUPPLY

12/24Vac - 12/60Vdc



100/240Vac

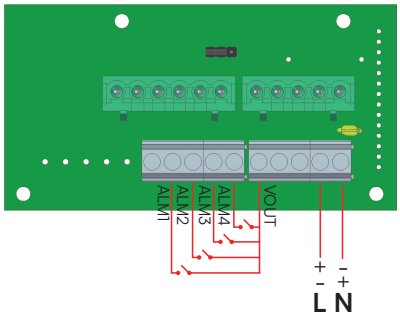




⚠ **On the power supply line use appropriate time-lag fuses according to the voltage.**

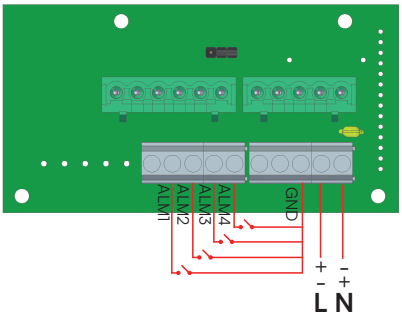
ALARMS ACTIVATION

PNP



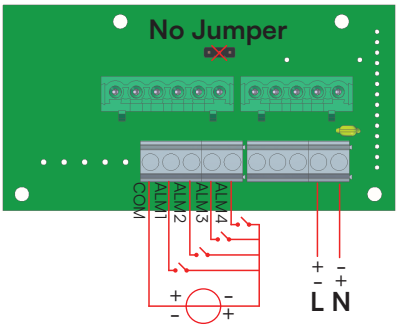
⚠ To activate the alarms in PNP mode, use the dedicated pin (VOUT) and not the positive of the power supply

NPN



⚠ To activate the alarms in NPN mode, use the dedicated pin (GND) and not the mass of the power supply

EXTERNAL POWER SUPPLY



⚠ ALM1 has priority over ALM2, ALM3 and ALM4
ALM2 has priority over ALM3 and ALM4
ALM3 has priority over ALM4

1 PWR: Power
2 PWR: Power
GND: Ground
CMD LAMP: Light command
VOUT: Aux voltage
ALM4: Alarm n°4
ALM3: Alarm n°3
ALM2: Alarm n°2
ALM1: Alarm n°1
COM: Common

The setting of the sounds and volume can be done:

- Via dip switch on the circuit
- By connecting to the SE 120 via NFC, using the dedicated application to be installed on the mobile phone

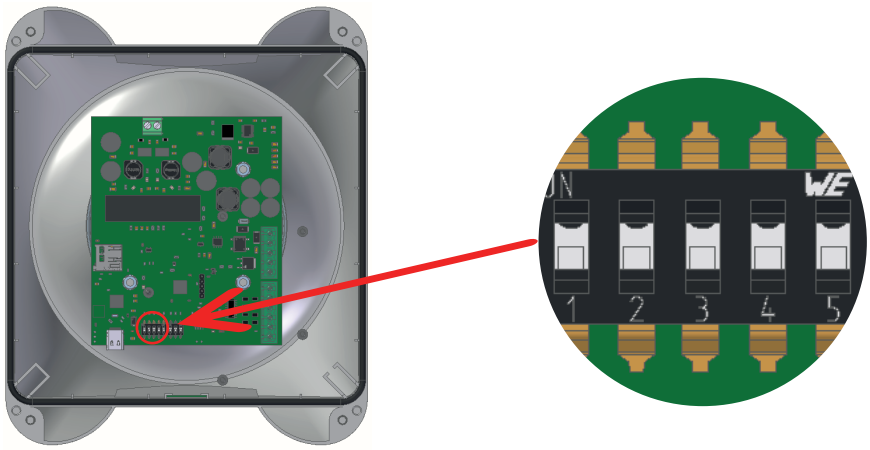
Only in the PRO version:

- By connecting to the SE 120 via the USB port, using the dedicated software to be installed on the PC

SETTING BY DIP SWITCH

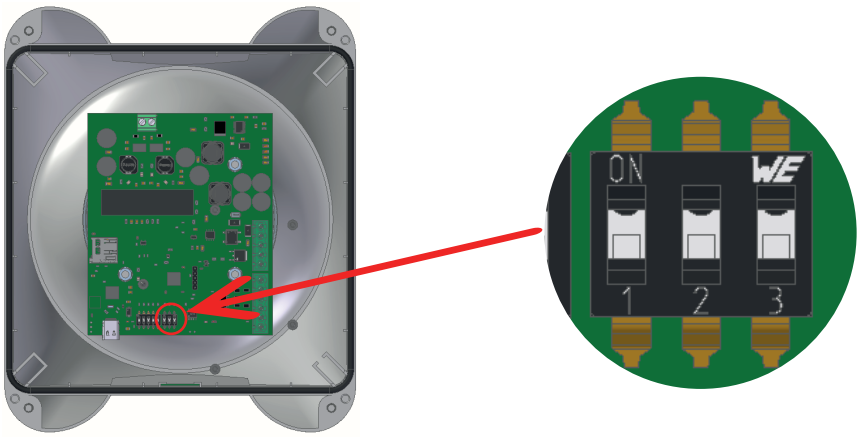
Through the dip switch, highlighted in the image below, it is possible to choose between 29 sound combinations

⚠ **For the list of sounds and possible combinations, see the appendix at the end of this manual**



Through the dip switch, highlighted in the image below, it is possible to choose between 8 different volume levels.

Volume level	Dip Switch			
Level 1	0	0	0	MIN
Level 2	0	0	1	
Level 3	0	1	0	
Level 4	0	1	1	
Level 5	1	0	0	
Level 6	1	0	1	
Level 7	1	1	0	
Level 8	1	1	1	MAX



⚠ **The volume increase for levels 7 and 8 is very limited and may therefore not be perceived by the user**

SETTING THROUGH THE APPLICATION

Through the "MySirena" application to be installed on devices with iOS and Android systems, it is possible to set the required sound and volume for each channel.
The application can be downloaded from the links:
iOS: https://apps.apple.com/app/mysirena/id1671784900
Android: https://play.google.com/store/apps/details?id=com.mysirena.app&gl=IT
or via the QR below.
N.B.: the application can only be used with phones with an integrated NFC reader.
In order to use the application it is necessary to verify that the dip switch is in the configuration that enables NFC (0 0 0 0 0), as also indicated in the sounds table in the appendix and the siren does not need to be powered.
It is therefore necessary to open the application following the instructions indicated and place the phone where the NFC writing is present, this will activate the reading of the configuration currently present on the siren and you can then choose the required sounds and volumes.

⚠ **It is possible to see the available sounds in the appendix in the sounds table.**

⚠ **NFC Freq.:13,56Mhz**

N.B.: The application contains the guide to use it correctly.

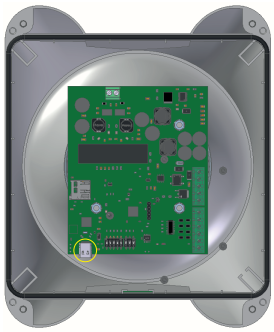
MySirena

Download on the App Store

GET IT ON Google Play

SETTING VIA PC (ONLY FOR PRO VERSIONS)

Through the dedicated software, by connecting the siren to the PC via the USB-C port, highlighted in the image below, it is possible to set the required sound and volume for each channel. It is also possible to configure each channel with a sound recorded in .wav and .ogg format.
To activate the USB-C port it is necessary to verify that the dip switch is in the configuration (0 0 0 0 0), as also indicated in the sounds table in the appendix and the siren does not need to be powered.
The software can be downloaded from the link:
https://sirena.it/wp-content/uploads/2023/02/MySirena_SE120_Installer.zip



N.B.: The software contains the guide to use it correctly.

⚠ **Supported audio files:**
OGG:
Channels : 1-2
Window size : 64-4096 samples
Sample rate: 48000 Hz
Bit rate : 500 kbit/s
WAV:
8-bit ulaw
8-bit linear PCM
16-bit Linear PCM

SE120

INSTRUCTIONS D'INSTALLATION ET D'UTILISATION

FR

CERETIFICATIONS		
UK CA	CE	

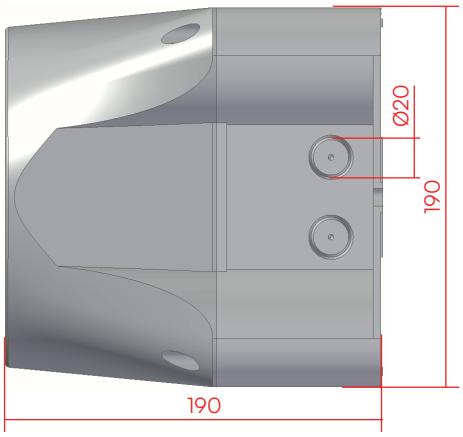
	AT	BE	CY	DK	DE	EE	FR	EL	IT	LU	NO	PT
	SI	ES	SE	CH	NL	BG	IE	HU	MT	IS	LI	TR

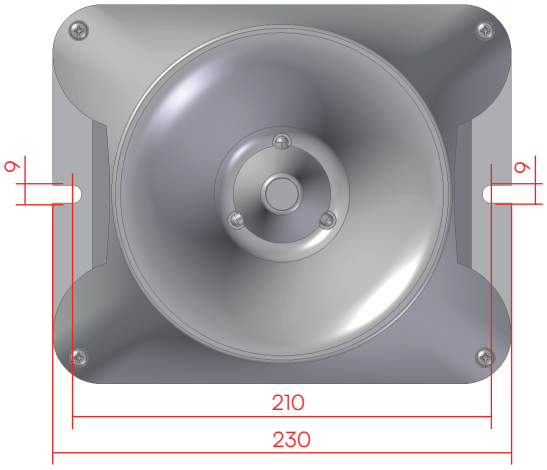
Le soussigné, RS Components Ltd., déclare que l'équipement radioélectrique du type SE120 est conforme à la directive 2014/53/UE.

CONSIGNES DE SÉCURITÉ

⚠	**COUPEZ LA TENSION AVANT DE TRAVAILLER SUR LE PRODUIT**
⚠	**L'INSTALLATION NE DOIT ÊTRE EFFECTUÉE QUE PAR DU PERSONNEL SPÉCIALISÉ**
⚠	**NE PAS ÉLIMINER AVEC LES DÉCHETS MUNICIPAUX**
⚠	**L'EXPOSITION AUX RADIOFRÉQUENCES DE L'APPAREIL NFC N'EST PAS CONSIDÉRÉE NOCIF POUR LE CORPS HUMAIN**

DIMENSIONS





DONNÉES TECHNIQUES

	SE120 LT						SE120 HT	
V ⎓	12	24	-	-	48	60	-	-
V ∼	-	-	12	24	-	-	120	240
mA	400	800	600	110	1300	1400	280	150

T	-30°C +50°C	IP	66 69K

INSTALLATION

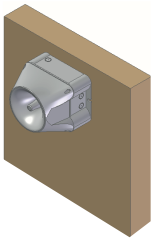
A) Séparez les deux parties de la SE120 en dévissant les 4 vis sur les côtés
B) Fixez la base au mur et câblez-la au réseau
C) Fermer la SE120 à l'aide d'un tournevis PZ2 et d'un couple de fermeture de 2.5N (l'avant de la SE120 se connecte automatiquement à la base lorsqu'il est monté)

N.B. La partie avant est équipée d'un système anti-erreur pour une installation correcte

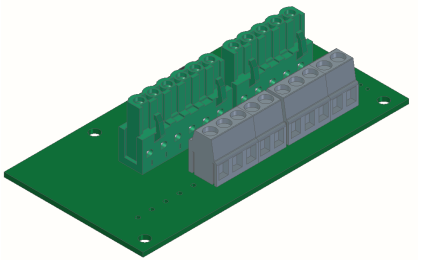
N.B. Pour l'entrée de câble, utilisez des presse-étoupes M20 certifiés UL avec une protection minimale IP66/69K.

N.B. Pour percer les pré-trous dans le socle, utilisez une fraise-trou Ø20mm

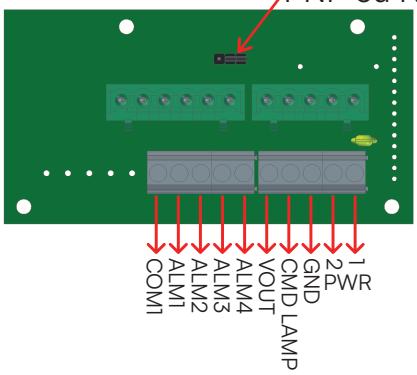
⚠ **Pour le bon fonctionnement de l'appareil fixez-le sur un mur vertical comme indiqué sur le dessin**



CÂBLAGE



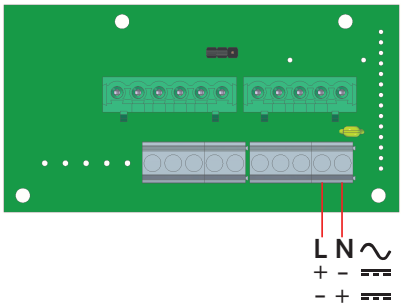
Cavalier à déplacer par connexion PNP ou NPN (version CC)



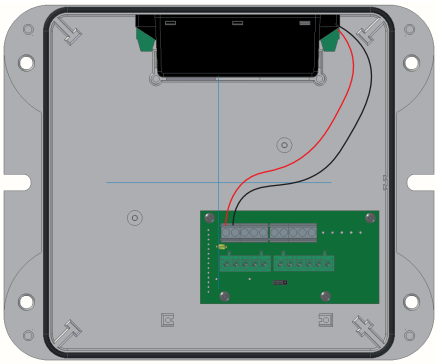
1 PWR: Power
2 PWR: Power
GND: Ground
CMD LAMP: Contrôle de la lumière
VOUT: Aux voltage
ALM4: Alarm n°4
ALM3: Alarm n°3
ALM2: Alarm n°2
ALM1: Alarm n°1
COM: Common

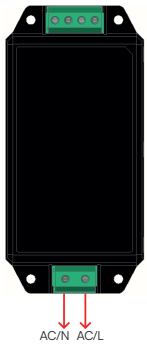
SOURCE

12/24Vac - 12/60Vdc



100/240Vac

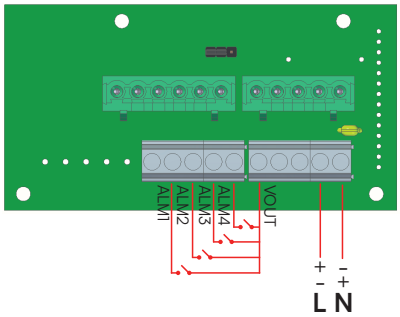




⚠ **Sur la ligne d'alimentation utiliser des fusibles retardés dimensionnés selon la tension.**

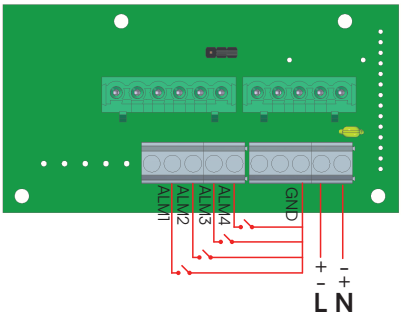
ACTIVATION DES ALARMES

PNP



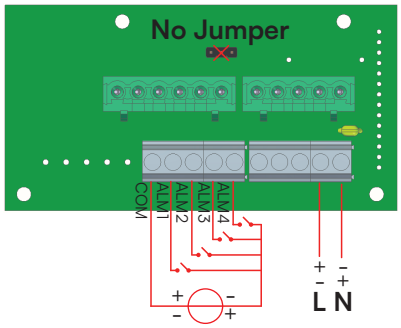
⚠	Pour activer les alarmes en mode PNP, utilisez la broche dédiée (VOUT) et non le positif de l'alimentation

NPN



⚠	Pour activer les alarmes en mode NPN, utilisez la broche dédiée (GND) et non la masse de l'alimentation

ALIMENTATION EXTERNE



⚠	ALM1 a priorité sur ALM2, ALM3 et ALM4 ALM2 a priorité sur ALM3 et ALM4 ALM3 est prioritaire sur ALM4

1 PWR: Power
2 PWR: Power
GND: Ground
CMD LAMP: Contrôle de la lumière
VOUT: Aux voltage
ALM4: Alarm n°4
ALM3: Alarm n°3
ALM2: Alarm n°2
ALM1: Alarm n°1
COM: Common

Les réglage des sons et du volume peuvent être effectué:

- Via un interrupteur dip sur le circuit
- Connexion à la SE 120 via NFC, en utilisant l'application dédiée à installer sur le téléphone mobile

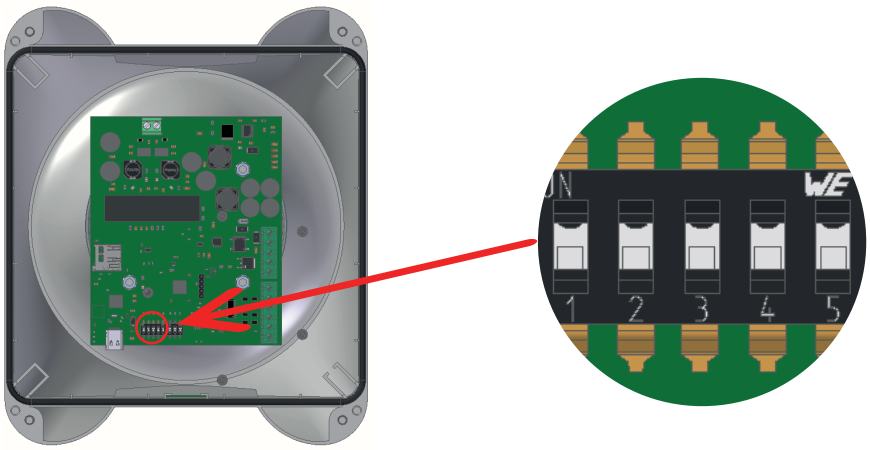
Uniquement pour la version PRO:

- Connexion à la SE 120 via le port USB, en utilisant le logiciel dédié à installer sur le PC

RÉGLAGE PAR DIP-SWITCH

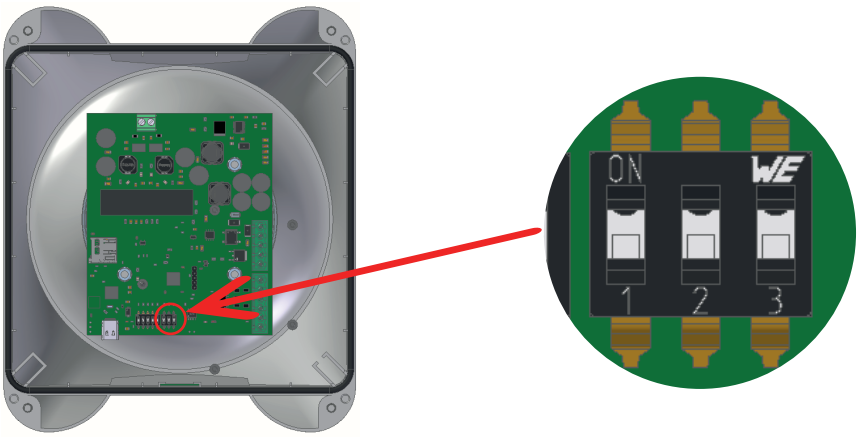
Grâce au commutateur DIP, mis en évidence dans l'image ci-dessous, il est possible de choisir parmi 29 combinaisons de sons.

⚠ **Pour la liste des sons et des combinaisons possibles, voir l'annexe à la fin de ce manuel**



Grâce au commutateur dip, mis en évidence dans l'image ci-dessous, il est possible de choisir entre 8 niveaux de volume différents.

Niveau sonore	Interrupteur			
Niveau 1	0	0	0	MIN
Niveau 2	0	0	1	
Niveau 3	0	1	0	
Niveau 4	0	1	1	
Niveau 5	1	0	0	
Niveau 6	1	0	1	
Niveau 7	1	1	0	
Niveau 8	1	1	1	MAX



⚠ **L'augmentation du volume pour les niveaux 7 et 8 est très limitée et peut donc ne pas être perçue par l'utilisateur**

RÉGLAGE PAR L'APPLICATION

Grâce à l'application "MySirena" à installer sur les appareils dotés des systèmes iOS et Android, il est possible de régler le son et le volume souhaités pour chaque chaîne.
L'application peut être téléchargée à partir des liens:
iOS: https://apps.apple.com/app/mysirena/id1671784900
Android: https://play.google.com/store/apps/details?id=com.mysirena.app&gl=IT
ou via le QR ci-dessous.
N.B. : l'application ne peut être utilisée qu'avec des téléphones équipés d'un lecteur NFC intégré.
Pour utiliser l'application, il est nécessaire de vérifier que le commutateur DIP est dans la configuration qui active NFC (0 0 0 0 0), comme également indiqué dans le tableau des sons en annexe et la sirène n'a pas besoin d'être alimentée.
Il faut donc ouvrir l'application en suivant les instructions indiquées et placer le téléphone là où l'écriture NFC est présente, cela activera la lecture de la configuration actuellement présente sur la sirène et vous pourrez alors choisir les sons et volumes souhaités.

⚠ **Il est possible de voir les sons disponibles en annexe dans le tableau des sons.**

⚠ **NFC Freq.:13,56Mhz**

N.B.: A l'intérieur de l'application, il y a un guide sur la façon de l'utiliser correctement.

MySirena

Download on the App Store
GET IT ON Google Play

RÉGLAGE VIA PC (UNIQUEMENT POUR LES VERSIONS PRO)

Grâce au logiciel dédié, en connectant la sirène au PC via le port USB-C, mis en évidence dans l'image ci-dessous, il est possible de régler le son et le volume souhaités pour chaque chaîne. Il est également possible de configurer chaque chaîne avec un son enregistré au format .wav et .ogg.
Pour activer le port USB-C, il est nécessaire de vérifier que le commutateur DIP est dans la configuration (0 0 0 0 0), comme également indiqué dans le tableau des sons en annexe et la sirène n'a pas besoin d'être alimentée.
Le software peut être téléchargé à partir du lien:
https://sirena.it/wp-content/uploads/2023/02/MySirena_SE120_Installer.zip

N.B.: A l'intérieur du logiciel, il y a un guide pour l'utiliser correctement.

⚠ **Fichiers audio pris en charge:**
OGG:
Channels : 1-2
Window size : 64-4096 samples
Sample rate: 48000 Hz
Bit rate : 500 kbit/s
WAV:
8-bit ulaw
8-bit linear PCM
16-bit Linear PCM

SE120

INSTALLATIONS- UND GEBRAUCHSANLEITUNG

D

CERETIFICATIONS		
UK CA	CE	

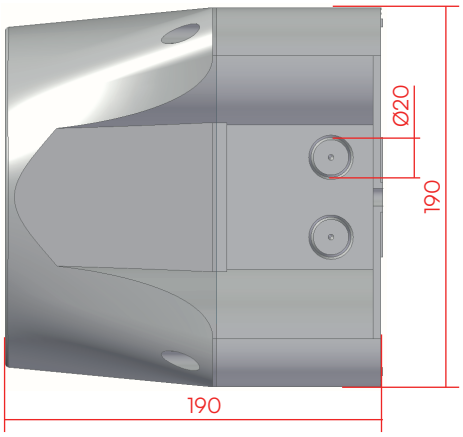
AT	BE	CY	DK	DE	EE	FR	EL	IT	LU	NO	PT
SI	ES	SE	CH	NL	BG	IE	HU	MT	IS	LI	TR

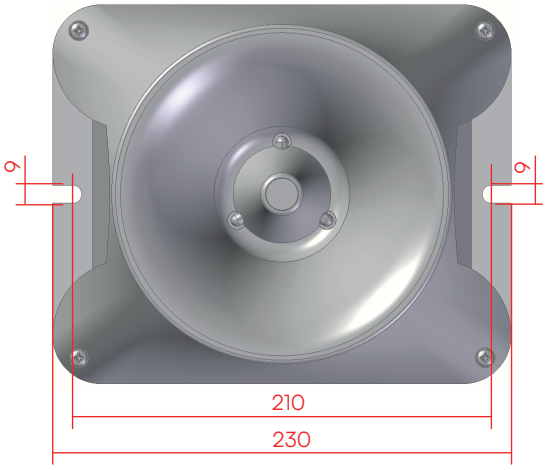
Hiermit erklärt RS Components Ltd., dass der Funkanlagentyp SE120 der Richtlinie 2014/53/EU entspricht.

SICHERHEITSHINWEISE

⚠	**VOR ARBEITEN AM PRODUKT DIE SPANNUNG ABSCHALTEN**
⚠	**DIE INSTALLATION DARF NUR VON FACHPERSONAL DURCHGEFÜHRT WERDEN**
⚠	**NICHT ALS SIEDLUNGSABFALL ENTSORGEN**
⚠	**DIE BELASTUNG DURCH FUNKFREQUENZEN DURCH DAS NFC-GERÄT GILT NICHT ALS SCHÄDLICH FÜR DEN MENSCHLICHEN KÖRPER**

DIMENSIONAL





TECHNISCHE DATEN

	SE120 LT						SE120 HT	
V ⎓	12	24	-	-	48	60	-	-
V ∼	-	-	12	24	-	-	120	240
mA	400	800	600	110	1300	1400	280	150

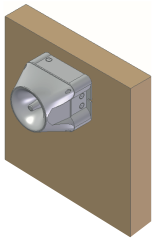
T	-30°C +50°C	IP	66 69K

INSTALLATION

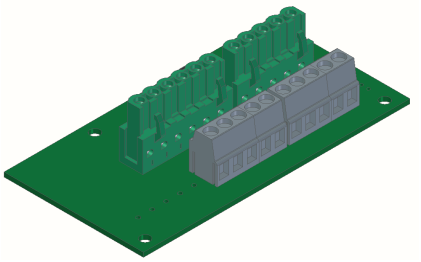
A) Trennen Sie die beiden Teile des SE120, indem Sie die 4 Schrauben an den Seiten lösen
B) Befestigen Sie die Basis an der Wand und verkabeln Sie sie mit dem Netzwerk
C) Schließen Sie den SE120 mit einem PZ2-Schraubendreher und einem Schließdrehmoment von 2,5N (SE120-Front verbindet sich automatisch mit der Basis, wenn montiert)

Hinweis: Der vordere Teil ist mit einem Anti-Fehler-System für eine korrekte Installation ausgestattet
Hinweis: Für die Kabeleinführung verwenden Sie UL-zertifizierte M20-Kabelverschraubungen mit Mindestschutzart IP66/69K
Hinweis: Um die Vorlöcher in den Sockel zu bohren, verwenden Sie einen Ø20-mm-Lochschneider

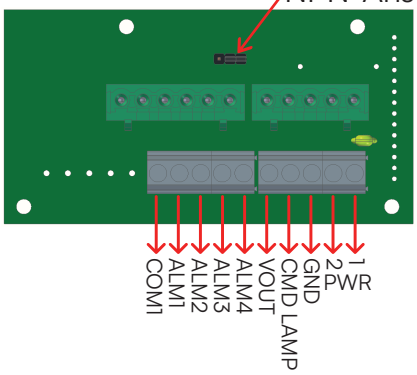
⚠ **Für die korrekte Funktion des Geräts Befestigen Sie es an einer senkrechten Wand, wie in der Zeichnung angegeben**



VERDRAHTUNG



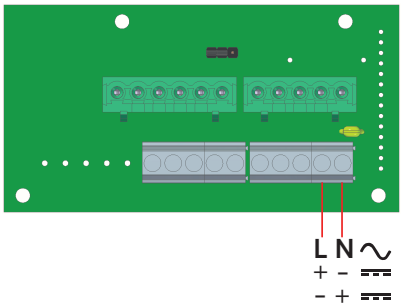
Jumper zum Umstecken für PNP- oder NPN-Anschluss (DC-Version)



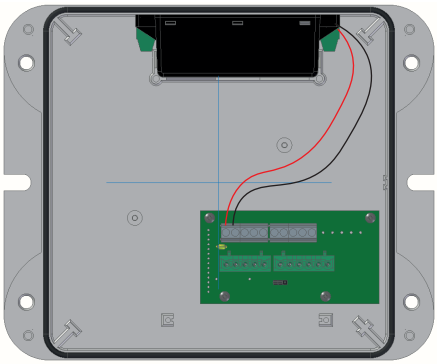
1 PWR-: Vout (-)
2 PWR+: Vin (+)
GND: Ground
CMD LAMP: Lichtsteuerung
VOUT: Aux voltage
ALM4: Alarm n°4
ALM3: Alarm n°3
ALM2: Alarm n°2
ALM1: Alarm n°1
COM: Common

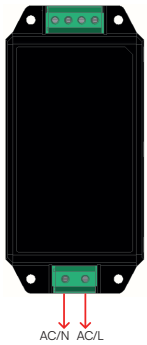
LIEFERN

12/24Vac - 12/60Vdc



100/240Vac

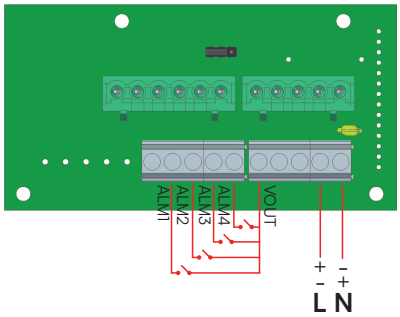




⚠ **Verwenden Sie in der Stromversorgungsleitung träge Sicherungen, deren Größe der Spannung entspricht.**

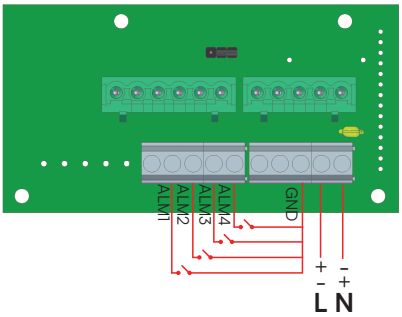
AKTIVIERUNG VON ALARMEN

PNP



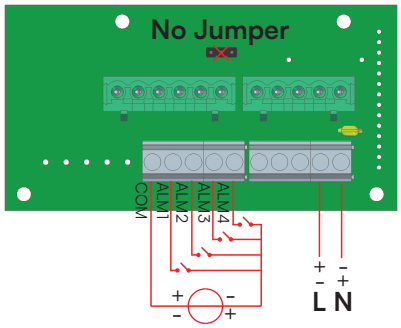
⚠	Um die Alarme im PNP-Modus zu aktivieren, verwenden Sie den dedizierten Pin (VOUT) und nicht den Pluspol der Stromversorgung

NPN



⚠	Um die Alarme im NPN-Modus zu aktivieren, verwenden Sie den dedizierten Pin (GND) und nicht die Masse der Stromversorgung

EXTERNE STROMVERSORGUNG



⚠	ALM1 hat Vorrang vor ALM2, ALM3 und ALM4 ALM2 hat Vorrang vor ALM3 und ALM4 ALM3 hat Vorrang vor ALM4

1 PWR: Power
2 PWR: Power
GND: Ground
CMD LAMP: Lichtsteuerung
VOUT: Aux voltage
ALM4: Alarm n°4
ALM3: Alarm n°3
ALM2: Alarm n°2
ALM1: Alarm n°1
COM: Common

Es können Ton- und Lautstärkeeinstellungen vorgenommen werden:

- Über Dip-Schalter an der Schaltung
- Verbindung mit dem SE 120 über NFC mit Hilfe einer speziellen Anwendung, die auf dem Mobiltelefon installiert wird

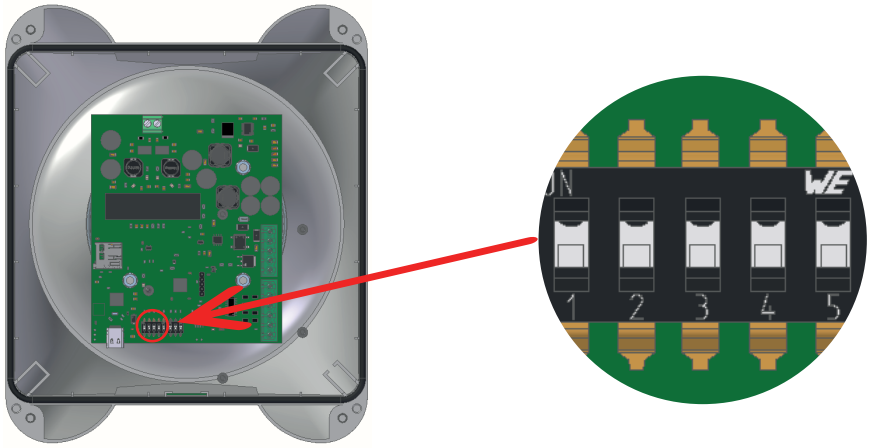
Nur für PRO-Version

- Anschluss an den SE 120 über den USB-Port mit Hilfe der auf dem PC zu installierenden Software

EINSTELLUNG ÜBER DIP-SCHALTER

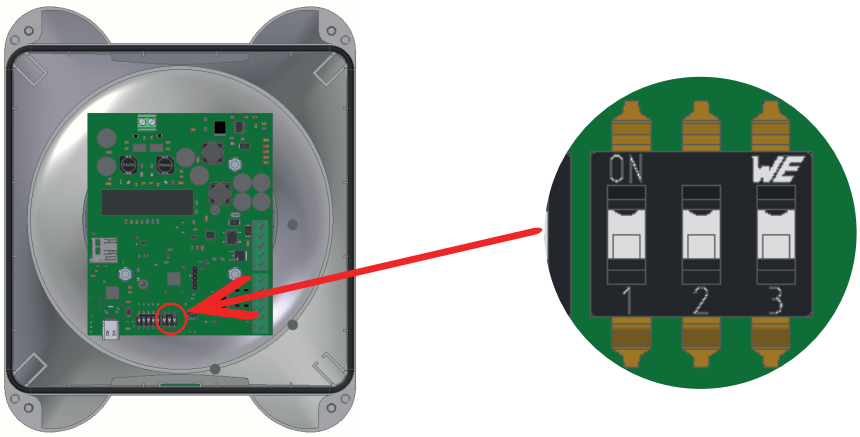
Über den Dip-Schalter, der in der Abbildung unten hervorgehoben ist, können Sie aus 29 Klangkombinationen wählen.

⚠ **Eine Liste der Sounds und möglichen Kombinationen finden Sie im Anhang am Ende dieser Anleitung**



Mit dem Dip-Schalter, der in der Abbildung unten hervorgehoben ist, können Sie zwischen 8 verschiedenen Lautstärken wählen.

Lautstärkepegel	Dip Schalter			
Stufe 1	0	0	0	MIN
Stufe 2	0	0	1	
Stufe 3	0	1	0	
Stufe 4	0	1	1	
Stufe 5	1	0	0	
Stufe 6	1	0	1	
Stufe 7	1	1	0	
Stufe 8	1	1	1	MAX



⚠ **Die Lautstärkeanhebung für die Stufen 7 und 8 ist sehr begrenzt und wird daher vom Benutzer möglicherweise nicht wahrgenommen**

EINSTELLUNG ÜBER ANWENDUNG

Über die auf Geräten mit iOS- und Android-Systemen zu installierende Anwendung „MySirena“ ist es möglich, für jeden Kanal den gewünschten Ton und die gewünschte Lautstärke einzustellen.
Die Anwendung kann unter den Links heruntergeladen werden:
iOS: https://apps.apple.com/app/mysirena/id1671784900
Android: https://play.google.com/store/apps/details?id=com.mysirena.app&gl=IT
oder über den nachstehenden QR.
Hinweis: Die Anwendung kann nur mit Telefonen mit integriertem NFC-Lesegerät verwendet werden.
Um die Anwendung verwenden zu können, muss überprüft werden, ob sich der DIP-Schalter in der Konfiguration befindet, die NFC aktiviert (0 0 0 0 0), wie auch in der Tontabelle angegeben im Anhang und die Sirene muss nicht mit Strom versorgt werden.
Es ist daher erforderlich, die Anwendung gemäß den angegebenen Anweisungen zu öffnen und das Telefon dort zu platzieren, wo die NFC-Schrift vorhanden ist. Dadurch wird das Lesen der aktiviert aktuell auf der Sirene vorhandene Konfiguration und Sie können dann die gewünschten Töne und Lautstärken auswählen.

⚠ **Die verfügbaren Sounds können im Anhang in der Soundtabelle eingesehen werden.**

⚠ **NFC Freq.:13,56Mhz**

Hinweis: In der Anwendung befindet sich die Anleitung, um sie richtig verwenden zu können.

MySirena

Download on the App Store
GET IT ON Google Play

EINSTELLUNG VIA PC (NUR FÜR PRO-VERSIONEN)

Durch die dedizierte Software ist es möglich, durch Anschließen der Sirene an den PC über den USB-C-Anschluss, der im Bild unten hervorgehoben ist, den gewünschten Ton und die gewünschte Lautstärke für jeden Kanal einzustellen. Es ist auch möglich, jeden Kanal mit einem Ton zu konfigurieren, der im .wav- und .ogg-Format aufgenommen wurde.
Um den USB-C-Anschluss zu aktivieren, muss überprüft werden, ob sich der DIP-Schalter in der Konfiguration (0 0 0 0 0) befindet, wie auch in der Geräuschtabelle im Anhang angegeben, und die Sirene muss nicht mit Strom versorgt werden.
Die Software kann unter folgendem Link heruntergeladen werden:
https://sirena.it/wp-content/uploads/2023/02/MySirena_SE120_Installer.zip

Hinweis: In der Software befindet sich die Anleitung, um sie richtig verwenden zu können.

⚠ **Unterstützte Sounddateien:**
OGG:
Channels : 1-2
Window size : 64-4096 samples
Sample rate: 48000 Hz
Bit rate : 500 kbit/s
WAV:
8-bit ulaw
8-bit linear PCM
16-bit Linear PCM

SE120

INSTRUCIONES DE INSTALACIÓN Y UTILIZACIÓN

ES

CERTIFICACIONES		
UK CA	CE	

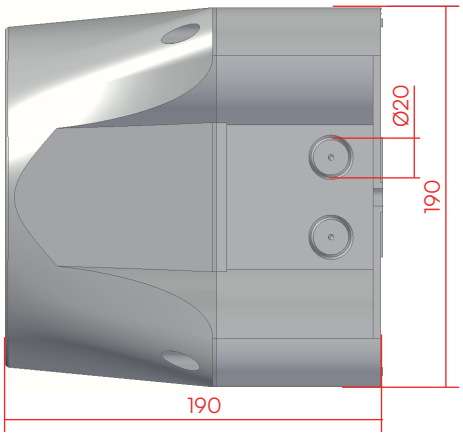
AT	BE	CY	DK	DE	EE	FR	EL	IT	LU	NO	PT
SI	ES	SE	CH	NL	BG	IE	HU	MT	IS	LI	TR

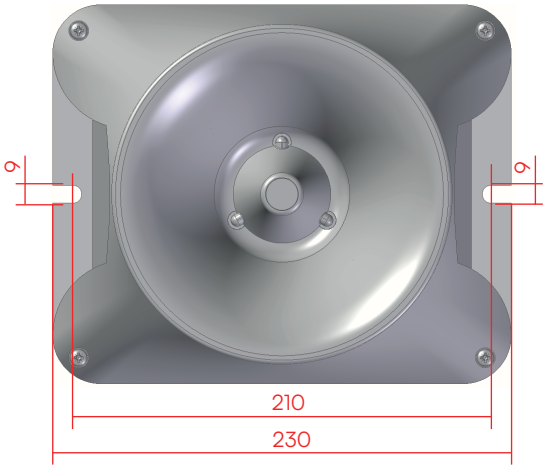
El fabricante RS Components Ltd. declara que el equipo radioeléctrico tipo SE120 cumple con la Directiva 2014/53/UE.

INSTRUCCIONES DE SEGURIDAD

⚠	**QUITAR LA TENSIÓN ANTES DE TRABAJAR EN EL PRODUCTO**
⚠	**LA INSTALACIÓN DEBE SER REALIZADA ÚNICAMENTE POR PERSONAL ESPECIALIZADO**
⚠	**NO ELIMINAR COMO RESIDUOS MUNICIPALES**
⚠	**LA EXPOSICIÓN A LA RADIOFRECUENCIA DEL DISPOSITIVO NFC NO SE CONSIDERA DAÑINA PARA EL CUERPO HUMANO**

DIMENSIONAL





DATOS TÉCNICOS

	SE120 LT						SE120 HT	
V ⎓	12	24	-	-	48	60	-	-
V ∼	-	-	12	24	-	-	120	240
mA	400	800	600	110	1300	1400	280	150

T	-30°C +50°C	IP	66 69K

INSTALACIÓN

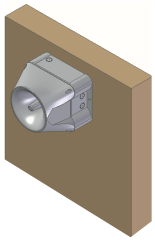
A) Separar las dos partes de la SE120 desatornillando los 4 tornillos de los laterales
B) Fijar la base a la pared y cablearla a la red
C) Cerrar la SE120 con un destornillador PZ2 y un par de cierre de 2.5N (el frente de la SE120 se conecta automáticamente a la base cuando está montado)

NÓTESE BIEN. La parte delantera está equipada con un sistema anti-error para una correcta instalación

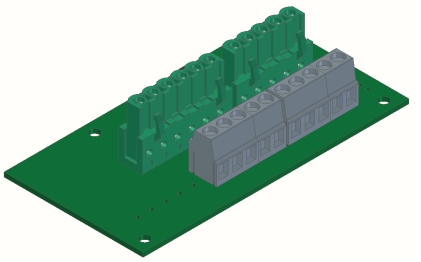
NÓTESE BIEN. Para la entrada de cables, utilice prensaestopas M20 certificados por UL con protección mínima IP66/69K

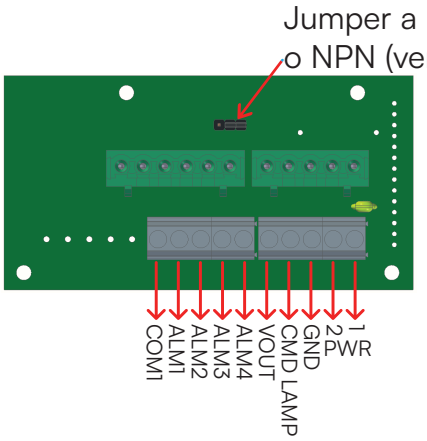
NÓTESE BIEN. Para perforar los preagujeros en la base, utilice una perforadora de Ø20 mm

⚠ **Para el correcto funcionamiento del dispositivo fijarlo en una pared vertical como se indica en el dibujo**



CABLAJE

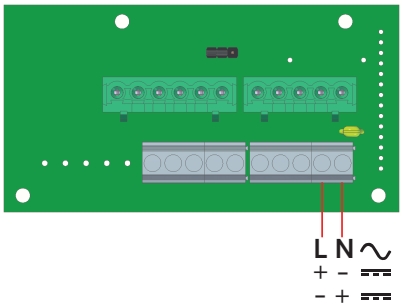




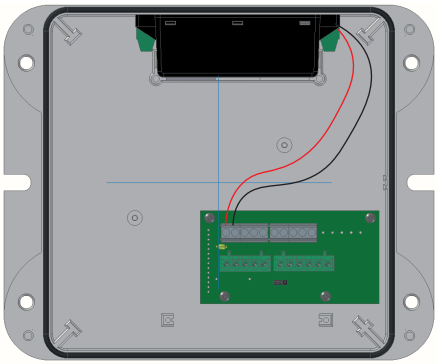
1 PWR: Power
2 PWR: Power
GND: Ground
CMD LAMP: Control de la luz
VOUT: Aux voltage
ALM4: Alarm n°4
ALM3: Alarm n°3
ALM2: Alarm n°2
ALM1: Alarm n°1
COM: Common

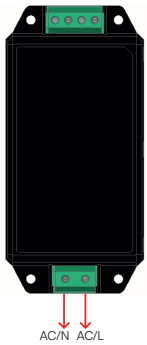
ALIMENTACIÓN

12/24Vac - 12/60Vdc



100/240Vac

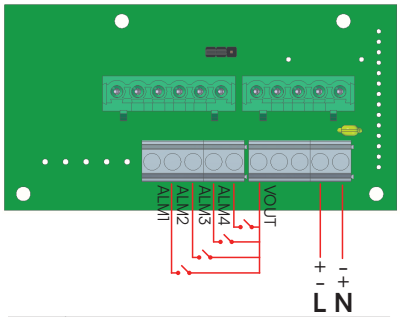




⚠ **En la línea de alimentación emplear fusibles lentos adecuados según el voltaje.**

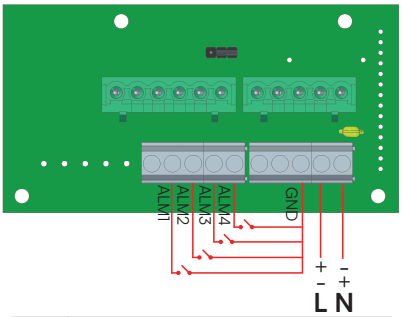
ACTIVACIÓN DE ALARMAS

PNP



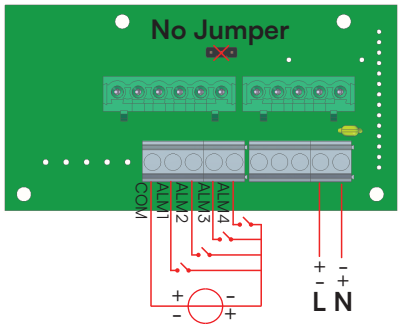
⚠ Para activar las alarmas en modo PNP, utilice el pin dedicado (VOUT) y no el positivo de la fuente de alimentación

NPN



⚠ Para activar las alarmas en modo NPN, use el pin dedicado (GND) y no la masa de la alimentación

ALIMENTACIÓN EXTERNA



⚠ ALM1 tiene prioridad sobre ALM2, ALM3 y ALM4
ALM2 tiene prioridad sobre ALM3 y ALM4
ALM3 tiene prioridad sobre ALM4

1 PWR: Power
2 PWR: Power
GND: Ground
CMD LAMP: Control de la luz
VOUT: Aux voltage
ALM4: Alarm n°4
ALM3: Alarm n°3
ALM2: Alarm n°2
ALM1: Alarm n°1
COM: Common

Se pueden realizar ajustes de sonido y volumen:

- A través de un interruptor DIP en el circuito
- Conexión con la SE 120 a través de NFC, mediante la aplicación dedicada que debe instalarse en el teléfono móvil

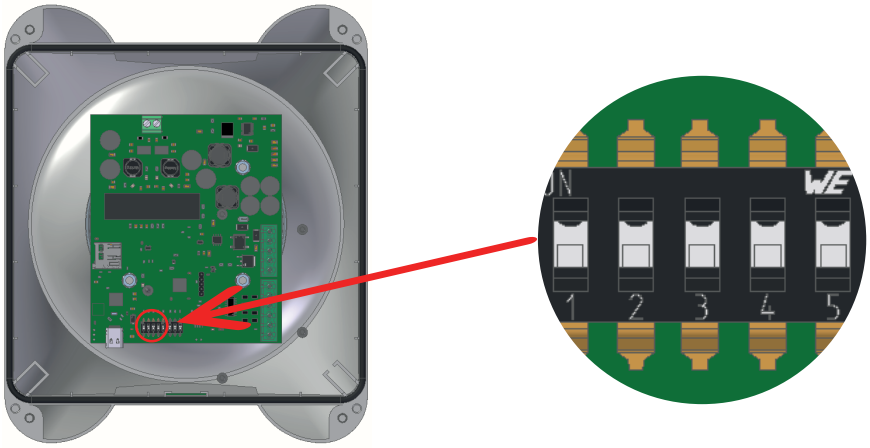
Solo para la versión PRO:

- Conexión a la SE 120 a través del puerto USB, utilizando el software dedicado que debe instalarse en el PC

AJUSTE MEDIANTE INTERRUPTOR DIP

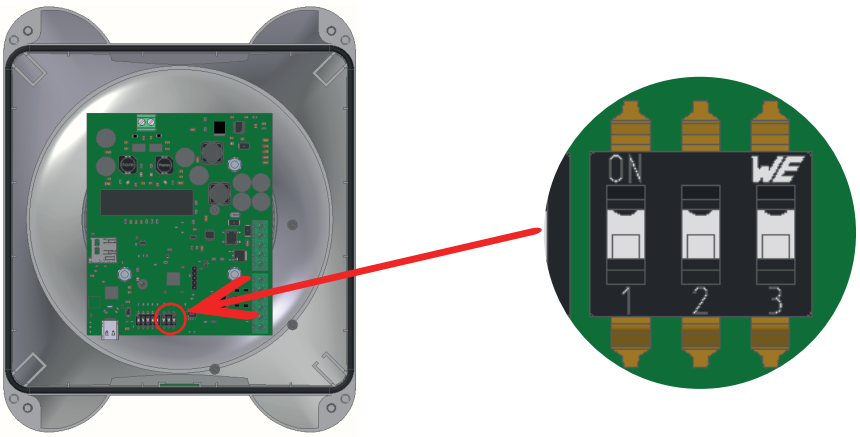
A través del interruptor DIP, resaltado en la imagen inferior, es posible elegir entre 29 combinaciones de sonido.

⚠ **Para la lista de sonidos y posibles combinaciones, consulte el apéndice al final de este manual**



A través del interruptor DIP, resaltado en la imagen inferior, es posible elegir entre 8 niveles de volumen diferentes.

Nivel de volumen	Interruptor Dip			
Nivel 1	0	0	0	MIN
Nivel 2	0	0	1	
Nivel 3	0	1	0	
Nivel 4	0	1	1	
Nivel 5	1	0	0	
Nivel 6	1	0	1	
Nivel 7	1	1	0	
Nivel 8	1	1	1	MAX



⚠ **El aumento de volumen para los niveles 7 y 8 es muy limitado y, por lo tanto, puede no ser percibido por el usuario**

AJUSTE A TRAVÉS DE LA APLICACIÓN

A través de la aplicación "MySirena" para ser instalada en dispositivos con sistema iOS y Android, es posible configurar el sonido y volumen requerido para cada canal.
La aplicación se puede descargar desde los enlaces:
iOS: https://apps.apple.com/app/mysirena/id1671784900
Android: https://play.google.com/store/apps/details?id=com.mysirena.app&gl=IT
o a través del QR a continuación.
N.B.: la aplicación solo se puede instalar en dispositivos con lector NFC integrado.
Para utilizar la aplicación es necesario verificar que el dip switch esté en la configuración que habilita NFC (0 0 0 0 0), como también se indica en la tabla de sonidos en el apéndice y la sirena no necesita ser alimentada.
Por lo tanto, es necesario abrir la aplicación siguiendo las instrucciones indicadas y colocar el teléfono donde está presente la escritura NFC, esto activará la lectura de la configuración actualmente presente en la sirena y luego puede elegir los sonidos y volúmen requeridos.

⚠ **Es posible ver los sonidos disponibles en el apéndice de la tabla de sonidos.**

⚠ **NFC Freq.:13,56Mhz**

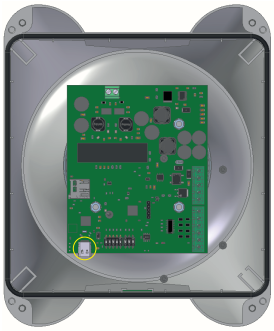
N.B.: Dentro de la aplicación se encuentra la guía para poder utilizarla correctamente.

MySirena

Download on the App Store
GET IT ON Google Play

AJUSTE A TRAVÉS DEL PC (SOLO PARA VERSIONES PRO)

A través del software dedicado, al conectar la sirena a la PC a través del puerto USB-C, resaltado en la imagen a continuación, es posible configurar el sonido y el volumen requeridos para cada canal. También es posible configurar cada canal con un sonido grabado en formato .wav y .ogg.
Para activar el puerto USB-C es necesario verificar que el dip switch esté en configuración (0 0 0 0 0), como también se indica en la tabla de sonidos del anexo y no es necesario alimentar la sirena.
El software se puede descargar en el enlace:
https://sirena.it/wp-content/uploads/2023/02/MySirena_SE120_Installer.zip



N.B.: Dentro del software se encuentra la guía para poder utilizarlo correctamente.

⚠ **Archivos de sonido soportados:**
OGG:
Channels : 1-2
Window size : 64-4096 samples
Sample rate: 48000 Hz
Bit rate : 500 kbit/s
WAV:
8-bit ulaw
8-bit linear PCM
16-bit Linear PCM

SE120

INSTRUÇÕES DE INSTALAÇÃO E UTILIZAÇÃO

P

CERTIFICACIONES		
UK CA	CE	

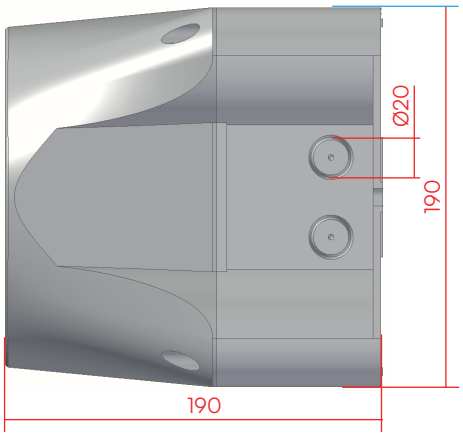
AT	BE	CY	DK	DE	EE	FR	EL	IT	LU	NO	PT
SI	ES	SE	CH	NL	BG	IE	HU	MT	IS	LI	TR

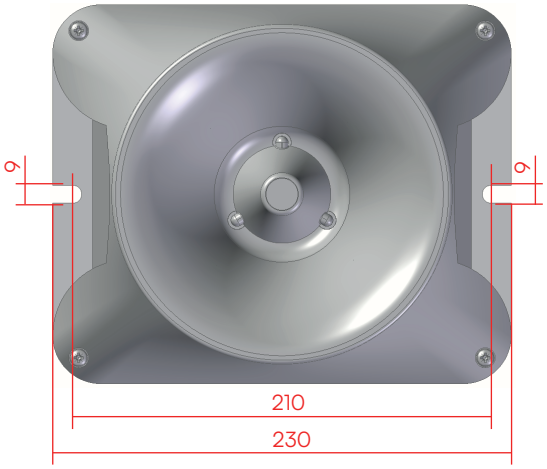
O abaixo assinado RS Components Ltd. declara que o presente tipo de equipamento de rádio SE120 está em conformidade com a Diretiva 2014/53/UE.

INSTRUÇÕES DE SEGURANÇA

⚠	**REMOVA A TENSÃO ANTES DE MUDAR O PRODUTO**
⚠	**A INSTALAÇÃO DEVE SER REALIZADA APENAS POR PESSOAL ESPECIALIZADO**
⚠	**NÃO ELIMINEM COMO RESÍDUOS URBANOS**
⚠	**A EXPOSIÇÃO À RÁDIOFREQUÊNCIA DO DISPOSITIVO NFC NÃO É CONSIDERADA NOCIVA AO CORPO HUMANO**

DIMENSIONAL





DADOS TÉCNICOS

	SE120 LT						SE120 HT	
V ⎓	12	24	-	-	48	60	-	-
V ∼	-	-	12	24	-	-	120	240
mA	400	800	600	110	1300	1400	280	150

T	-30°C +50°C	IP	66 69K

INSTALAÇÃO

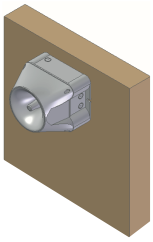
A) Separe as duas partes de SE120 desaparafusando os 4 parafusos nas laterais
B) Fixe a base na parede e conecte-a à rede
C) Feche lá SE120 usando uma chave de fenda PZ2 e um torque de fechamento de 2,5N (a frente de SE120 se conecta automaticamente à base quando montado)

N.B. A parte frontal está equipada com um sistema anti-erro para uma instalação correta

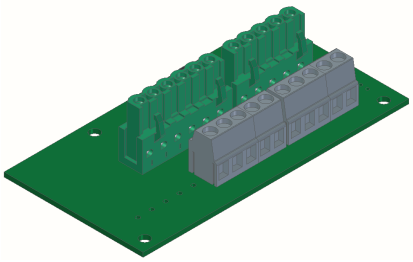
N.B. Para entrada de cabos, use prensa-cabos M20 certificados pela UL com proteção mínima IP66/69K

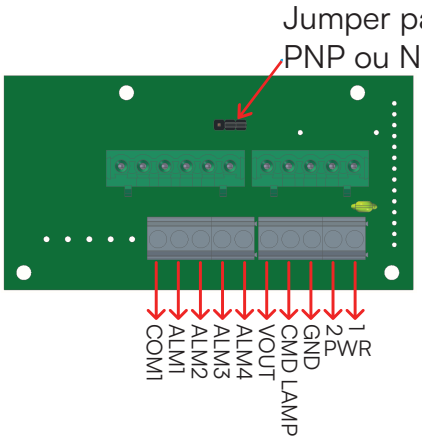
N. B. Para fazer os pré-furos na base, utilize um cortador de furos de Ø20mm

⚠ **Para o correto funcionamento do dispositivo fixe-o em uma parede vertical conforme indicado no desenho**



FIAÇÃO

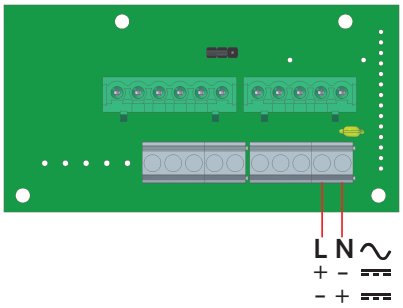




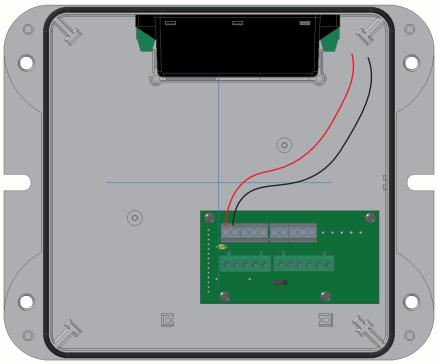
1 PWR: Power
2 PWR: Power
GND: Ground
CMD LAMP: Controle de luz
VOUT: Aux voltage
ALM4: Alarm n°4
ALM3: Alarm n°3
ALM2: Alarm n°2
ALM1: Alarm n°1
COM: Common

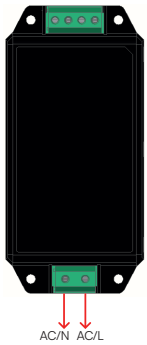
FORNECER

12/24Vac - 12/60Vdc



100/240Vac

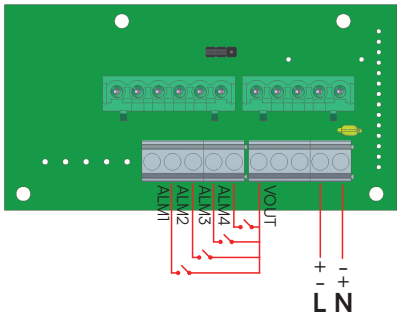




⚠ **Na linha de alimentação utilizar fusíveis temporizados dimensionados de acordo com a tensão.**

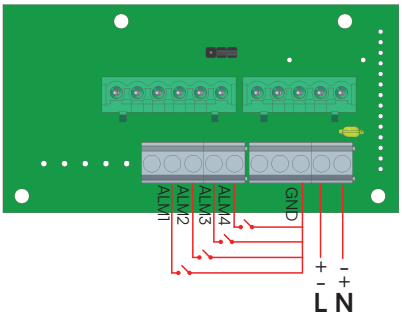
ATIVAÇÃO DE ALARMES

PNP



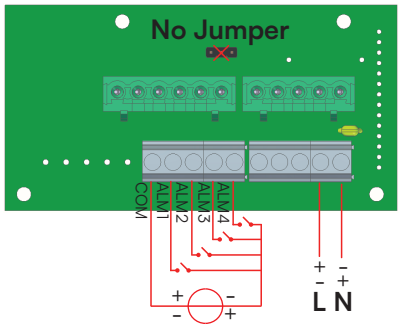
⚠ Para ativar os alarmes no modo PNP, utilize o pino dedicado (VOUT) e não o positivo da fonte de alimentação

NPN



⚠ Para ativar os alarmes no modo NPN, use o pino dedicado (GND) e não a massa da alimentação

ENERGIA EXTERNA



⚠ ALM1 tem prioridade sobre ALM2, ALM3 e ALM4
ALM2 tem prioridade sobre ALM3 e ALM4
ALM3 tem prioridade sobre ALM4

1 PWR: Power
2 PWR: Power
GND: Ground
CMD LAMP: Controle de luz
VOUT: Aux voltage
ALM4: Alarm n°4
ALM3: Alarm n°3
ALM2: Alarm n°2
ALM1: Alarm n°1
COM: Common

A regulação do som e do volume pode ser feita:

- Via dip switch sem circuito
- Conectando-se ao SE 120 via NFC, usando o aplicativo dedicado a ser instalado no celular

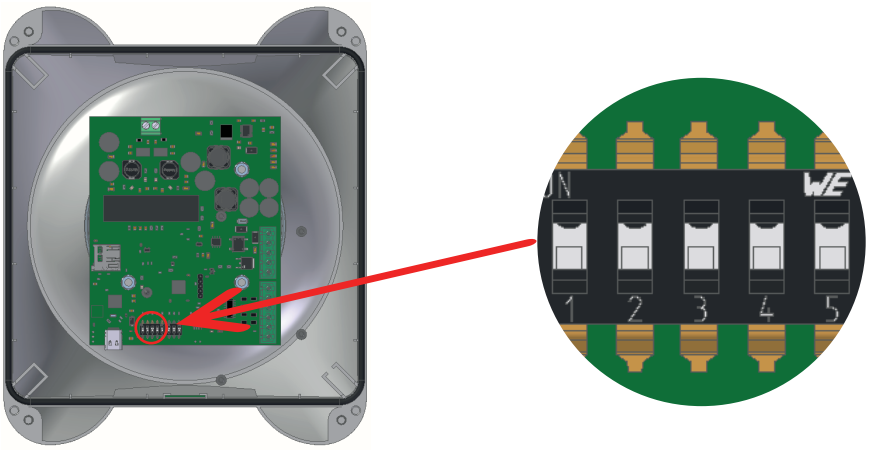
Apenas para versão PRO:

- Conectando-se ao SE 120 através da porta USB, usando o software dedicado a ser instalado no PC

AJUSTE POR DIP SWITCH

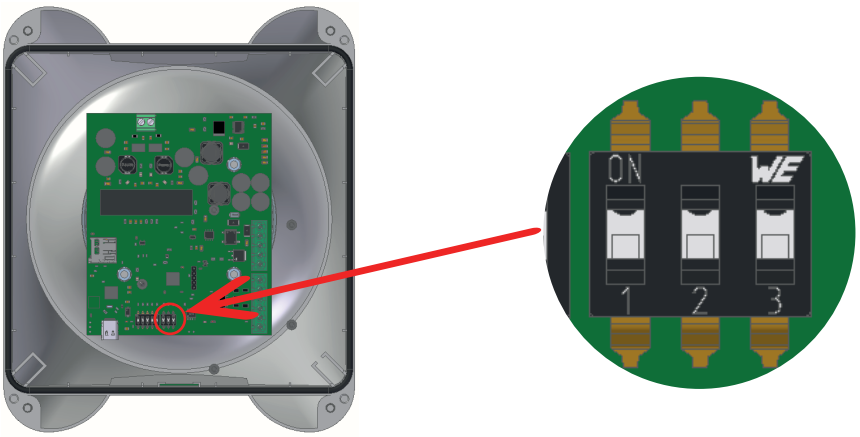
Através do interruptor de mergulho, destacado na imagem abaixo, você pode escolher entre 29 combinações de som.

⚠ **Para a lista de sons e combinações possíveis, consulte o apêndice no final deste manual**



Através do interruptor de imersão, destacado na imagem abaixo, você pode escolher entre 8 níveis de volume diferentes.

Nivel de volume	Interruptor de imersão			
Nível 1	0	0	0	MIN
Nível 2	0	0	1	
Nível 3	0	1	0	
Nível 4	0	1	1	
Nível 5	1	0	0	
Nível 6	1	0	1	
Nível 7	1	1	0	
Nível 8	1	1	1	MAX



⚠ **O aumento de volume para os níveis 7 e 8 é muito limitado e, portanto, pode não ser percebido pelo usuário**

CONFIGURAÇÃO POR APLICAÇÃO

Através do aplicativo “MySirena” a ser instalado em aparelhos com sistemas iOS e Android, é possível definir o som e volume desejado para cada canal.
O aplicativo pode ser baixado nos links:
iOS: https://apps.apple.com/app/mysirena/id1671784900
Android: https://play.google.com/store/apps/details?id=com.mysirena.app&gl=IT
ou pelo QR abaixo.
N.B.: a aplicação só pode ser utilizada em telemóveis com leitor NFC integrado.
Para utilizar o aplicativo é necessário verificar se o dip switch está na configuração que habilita NFC (0 0 0 0 0), conforme também indicado na tabela de sons no apêndice e a sirene não precisa ser alimentada.
Portanto, é necessário abrir o aplicativo seguindo as instruções indicadas e colocar o telefone onde a escrita NFC estiver presente, isso ativará a leitura do configuração atualmente presente na sirene e você pode então escolher os sons e volumes desejados.

⚠ **É possível ver os sons disponíveis no apêndice na tabela de sons.**

⚠ **NFC Freq.:13,56Mhz**

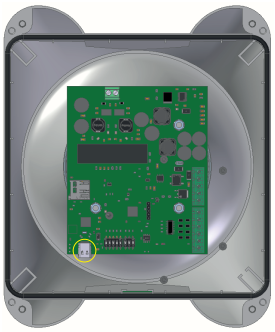
N.B.: Dentro do aplicativo existe o guia para poder utilizá-lo corretamente.

MySirena

Download on the App Store
GET IT ON Google Play

CONFIGURAÇÃO VIA PC (SOMENTE PARA VERSÕES PRO)

Através do software dedicado, conectando a sirene ao PC através da porta USB-C, destacada na imagem abaixo, é possível definir o som e volume desejados para cada canal. Também é possível configurar cada canal com um som gravado nos formatos .wav e .ogg.
Para ativar a porta USB-C é necessário verificar se o dip switch está na configuração (0 0 0 0 0), conforme também indicado na tabela de sons em anexo e a sirene não precisa ser alimentada.
O software pode ser baixado no link:
https://sirena.it/wp-content/uploads/2023/02/MySirena_SE120_Installer.zip



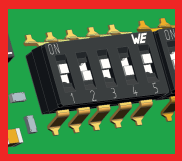
N.B.: Dentro do software existe o guia para poder utilizá-lo corretamente.

⚠ **Arquivos de som suportados:**
OGG:
Channels : 1-2
Window size : 64-4096 samples
Sample rate: 48000 Hz
Bit rate : 500 kbit/s
WAV:
8-bit ulaw
8-bit linear PCM
16-bit Linear PCM

APPENDICE - APPENDIX - ANNEXE
BLINDDARM - APÉNDICE - APÊNDICE

Combinazioni suoni - Sound combinations - Combinaisons sonores
Klangkombinationen - Combinaciones de sonido - Combinações de som

SETTING EXAMPLE



ON=1
OFF=0

1 0 1 0 1

Allarm A: n°66
Allarm B: n°20
Allarm C: n°57
Allarm D: n°41

Tramite dip switch è possibile scegliere una combinazione di suoni preimpostata.
Using dip switch it is possible to choose a preset combination of sounds.
À l'aide de commutateurs DIP, il est possible de choisir une combinaison prédéfinie de sons.
Mithilfe von Dip-Schaltern ist es möglich, eine voreingestellte Klangkombination auszuwählen.
Usando interruptores DIP es posible elegir una combinación preestablecida de sonidos.
Usando dip switch é possível escolher uma combinação predefinida de sons.

Dip1	Dip2	Dip3	Dip4	Dip5	N°	Allarm A	Allarm B	Allarm C	Allarm D
0	0	0	0	0	1	NFC / USB-C			
1	0	0	0	0	2	21	0	37	46
0	1	0	0	0	3	22	1	38	47
1	1	0	0	0	4	23	2	39	48
0	0	1	0	0	5	24	3	40	49
1	0	1	0	0	6	25	4	41	50
0	1	1	0	0	7	26	5	42	51
1	1	1	0	0	8	27	6	43	52
0	0	0	1	0	9	28	7	44	53
1	0	0	1	0	10	29	8	45	54
0	1	0	1	0	11	30	9	46	55
1	1	0	1	0	12	31	10	47	56
0	0	1	1	0	13	32	11	48	57
1	0	1	1	0	14	33	12	49	58
0	1	1	1	0	15	34	13	50	59
1	1	1	1	0	16	35	14	51	60
0	0	0	0	1	17	36	15	52	61
1	0	0	0	1	18	62	16	53	37
0	1	0	0	1	19	63	17	54	38
1	1	0	0	1	20	64	18	55	39
0	0	1	0	1	21	65	19	56	40
1	0	1	0	1	22	66	20	57	41
0	1	1	0	1	23	52	38	58	42
1	1	1	0	1	24	53	39	59	43
0	0	0	1	1	25	54	40	60	44
1	0	0	1	1	26	55	41	61	45
0	1	0	1	1	27	56	42	17	57
1	1	0	1	1	28	57	45	18	58
0	0	1	1	1	29	58	44	19	59
0	1	1	1	1	30	59	43	20	60

Tabella suoni - Sound table - Table de son
Soundtisch - Mesa de sonido - Mesa de som

SOUNDS					
N°	TONE	TONE TYPE	F(Hz)	TIMES	DESCRIPTION
0	Bi-tone		600-700	0.5s/0.5s	STANDARD
1	Bi-tone		440-560	0.565s/0.565s	STANDARD — EVACUATION
2	Bi-tone		800-970	0.25s/0.25s	BS5839—1:2002
3	Bi-tone		800-970	0.8s/0.8s	GENERAL PURPOSE
4	Bi-tone		1000-2000	1s/1s	GENERAL PURPOSE
5	Bi-tone		480-610	0.5s/0.5s	GENERAL PURPOSE — EVACUATION 1
6	Bi-tone		970-630	0.5s/0.5s	APOLLO FIRE SYSTEM BS5839
7	Bi-tone		554-440	0.1s/0.4s	FRANCE — AFNOR NF S 32 001
8	Bi-tone		440-554	0.5s/0.5s	GENERAL PURPOSE
9	Bi-tone		510-610	0.5s/0.5s	GENERAL PURPOSE
10	Bi-tone		510-610	1s/1s	GENERAL PURPOSE
11	Bi-tone		600-700	1s/1s	GENERAL PURPOSE
12	Bi-tone		550-1000	0.5s/0.5s	GENERAL PURPOSE
13	Bi-tone		550-1000	1s/1s	GENERAL PURPOSE
14	Bi-tone		800-1000	0.5s/0.5s	GENERAL PURPOSE
15	Bi-tone		800-1000	1s/1s	GENERAL PURPOSE
16	Bi-tone		1000-2000	0.5s/0.5s	GENERAL PURPOSE
17	Bi-tone		2400-2850	0.265s/0.265s	GENERAL PURPOSE
18	Bi-tone		2400-2850	0.465s/0.465s	GENERAL PURPOSE
19	Bi-tone		640-970	0.5s/0.5s	GENERAL PURPOSE
20	Bi-tone		490-610	0.5s/0.5s	GENERAL PURPOSE
21	Intermittent		420	0.625s ON/0.625s OFF	AUSTRALIA AS1670 ALERT TONE
22	Intermittent		660	0.15s ON/0.15s OFF	SWEDISH (AIR RAID)
23	Intermittent		660	1.8s ON/1.8s OFF	SWEDISH (LOCAL WARNING)
24	Intermittent		660	0.5s ON/0.5s OFF	SWEDISH GENERAL PURPOSE
25	Intermittent		720	0.7s ON/0.3s OFF	GENERAL PURPOSE
26	Intermittent		750	0.33s ON/0.5s OFF	GENERAL PURPOSE
27	Intermittent		800	0.25s ON/1s OFF	GENERAL PURPOSE
28	Intermittent		970-800	0.35s/0.35s/0,35s OFF X 3 1.5s OFF	ISO 8201
29	Intermittent		970	0.5s ON/0.5s OFF X 3 1.5s OFF	ISO 8201 LOW TONE
30	Intermittent		1750	0,1s ON/0,5s OFF X 3	GENERAL PURPOSE
31	Intermittent		970	0,25s ON/0,25s OFF	GENERAL PURPOSE
32	Intermittent		490	0.5s ON/1s OFF	GENERAL PURPOSE — WARNING
33	Intermittent		544	0.625s ON/0.625s OFF	GENERAL PURPOSE
34	Intermittent		660	6.5s ON/13s OFF	SWEDISH (PRE-MESS)
35	Intermittent		970	1s ON/1s OFF	APOLLO FIRE SYSTEM BS5839
36	Intermittent		2850	0.5s ON/0.5s OFF X 3 1.5s OFF	ISO 8201 HIGHT TONE
37	Linear		300	-	GENERAL PURPOSE
38	Linear		660	-	SWEDISH (ALL CLEAR)
39	Linear		750	-	GENERAL PURPOSE
40	Linear		2850	-	GENERAL PURPOSE
41	Linear		610	-	GENERAL PURPOSE — EVACUATION 2
42	Linear		500	-	GENERAL PURPOSE
43	Linear		970	-	BS5839—1:2002
44	Linear		825	-	GENERAL PURPOSE
45	Linear		1000	-	GENERAL PURPOSE
46	Sweep		1000-4000	CYCLE 2s	GENERAL PURPOSE
47	Sweep		500-1200	3.5s ON/0.5s OFF	NETHERLANDS-NEN2575:2000
48	Sweep		500-1200	0.5s ON/0.5s OFF X 3 1.5s OFF	AUSTRALIA AS1670
49	Sweep		800-970	0.5s ON/0.5s OFF X 3 1.5s OFF	ISO 8201
50	Sweep		1000-2000	CYCLE 2s	STANDARD
51	Sweep		1000-1700	CYCLE 0,8s	STANDARD
52	Sweep		2000-1000	CYCLE 2s	STANDARD
53	Sweep		2700-1700	1s ON/ 2s ON/1s OFF	STANDARD
54	Sweep		500-1200	CYCLE 3.75s/0.25s OFF	AS2220
55	Sweep		1400-1600	CYCLE 1.5s	NF 48-265
56	Sweep		800-970	CYCLE 1.5s	BS5839—1:2002
57	Sweep		1200-500	CYCLE 1s	DIN 33 404
58	Sweep		1500-2000	CYCLE 1.5s	GENERAL PURPOSE
59	Sweep		800-970	CYCLE 1s	UNI 11744
60	Sweep		2450-2850	CYCLE 1s	EN54-3
61	Sweep		2000-500	CYCLE 1.5s	GENERAL PURPOSE
62	Sinusoidal		500-2500	CYCLE 0.32s	STANDARD
63	Sinusoidal		1000-3000	CYCLE 0.64s	STANDARD
64	Sinusoidal		2000-4000	CYCLE 0.64s	STANDARD
65	White noise		Random	-	STANDARD
66	Intermittent White noise		Random	0.5s ON/0.5s OFF	STANDARD