

21142 - LRRSB Photovoltaic IP66 Repeater with Siren and Visual

Revision: 01 | Creation Date: 2026-06-05 | Revision Date: 2026-08-11



Model: 21142 | LRRSB



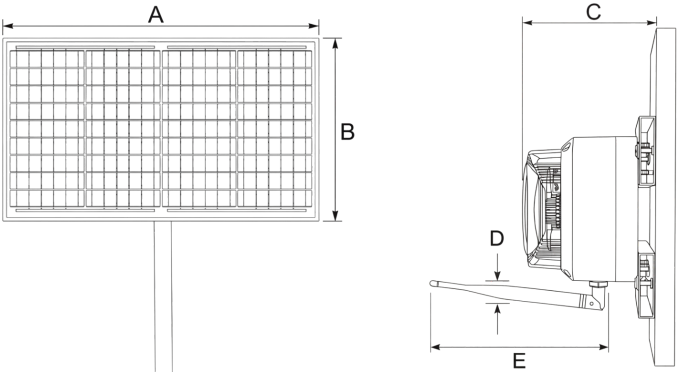
Application

The Photovoltaic Siren with Audio Visual operates on solar power with a Li-Ion backup battery, sounding and flashing locally upon receiving alarm signals. It also functions as a repeater, retransmitting signals between field devices and the alarm control panel. Suitable for indoor and outdoor use (IP66), including areas without mains power.

Operation

Upon receiving an alarm signal from the control panel, the device immediately activates the siren and visual signaling.

Dimensions



A	B	C	D	E
17.7 in	14.2 in	5.4 in	0.5 in	7.7 in

Standard Features

- Wireless protocol — 2.4 GHz, ISM band (Industrial, Scientific and Medical).
- Solar panel powered with internal Li-Ion backup battery.
- IP66 ingress protection — suitable for indoor and outdoor installation.
- 128-bit AES encryption; restricted to enrolled installation unit.
- Communication range: up to 120 m indoor and up to 1,500 m outdoor (line of sight).
- Tamper detection: removal alert at control panel within 2 seconds.
- Low-battery alert and level indication at the control panel.
- Equipment fault indication at the Fire Detection and Alarm Panel within 5 minutes.
- Internal battery estimated lifespan of 24 months as specified by the manufacturer; after this period, capacity may decrease — preventive inspection is recommended.

Product Certifications:



Specifications

ENVIRONMENTAL CHARACTERISTICS	
Ingress Protection	IP66
Operating temperature	-10 to 55 °C
Storage temperature	0 to 40 °C
Relative humidity	10% to 95%
ELECTRICAL CHARACTERISTICS	
Power supply	Solar power
Normal operation current	≤ 360 mA
Triggering current	≤ 1,000 mA
BATTERY	
Type	Li-Ion 3.7 V, 2,200 mAh
Charging time	≤ 12 hours
Battery autonomy	≥ 25 h (audio and visual off)

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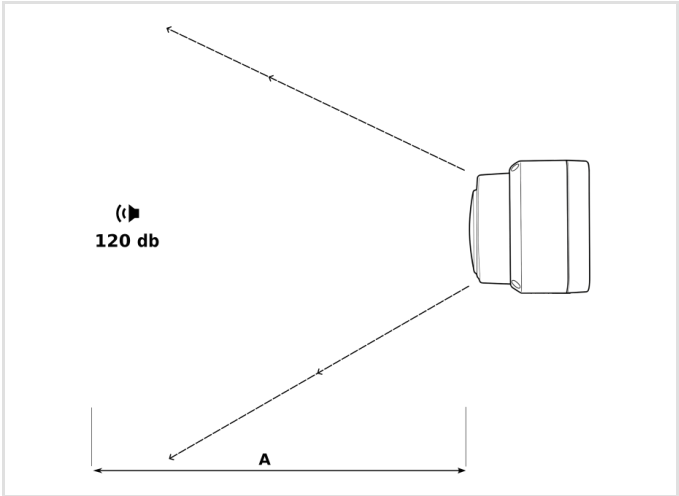
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Specifications

DIMENSIONS	
Body (A × B × C)	17.7 × 14.2 × 5.4 in
Antenna (E × D × D)	7.7 × 0.5 × 0.5 in
Weight	3,500 g
AUDIO	
Sound output	Up to 120 dB depending on configuration
Sound types	97 pre-configured + configurable
RADIO FREQUENCY — 802.15.4	
Operating channels	11 to 26 (default 26)
Network encryption	AES 128-bit
Data transfer rate	256 kbps
Modulation	O-QPSK
Antenna gain	5 dBi
TX power	≤ 20 dBm
Sensitivity	-102 dBm
Antenna type	External
Indoor range	120 m
Outdoor range (line of sight)	1,500 m
Standard	802.15.4

Sound Propagation



The wide-angle horn distributes sound energy across a broad dispersion angle, providing uniform coverage of the environment. It is recommended for applications requiring wide and homogeneous sound propagation, maximizing the coverage area.

A: reference distance of 1 m for peak sound pressure level measurement at 120 dB.

LED Indicators

LED	State	Description
	Green Operational	Green LED flashing — device operational.
	Blue Signal Strength	Flashing: low signal strength; solid: high signal strength.
	Red Alarm	Red LED solid — alarm active; siren and visual signaling activated when equipped.
	Yellow Fault	Yellow LED solid — active fault (e.g., sensor removed); communication maintained with the control panel.