

Wireless Elevator Alarm System

Model: FBX-ALBATROSS

Technical Product Specification Document



FORBIX SEMICON®
Elevator Alarm System

Transmitter: Remote triggered or Direct button triggered

Receiver: Siren with 8 indicators and 108decible loud alarm sound

Signal Range: 2-3Kms in (open Line of Sight)

Operating voltage: 12VDC (adapters along with the device), customized designs for 5VDC USB input voltage

Customized design possible for VGA monitor display outputs & additional sirens / alarms / indicators

About the device

Panic Button or Remote Trigger: The system includes a long-range panic button installed inside the elevator car. Alternatively, a remote controller can be placed inside the cabin with the transmitter mounted on top of the elevator for better signal reach.

Wireless Communication: When a person presses the panic button or remote during a breakdown, the system instantly sends a wireless signal to a far-located receiver unit, ensuring help is alerted even if the elevator is stuck between floors.

Loud Audible Alarm: The receiver unit triggers a loud siren sound upon activation, making it easy for building staff or security to hear the alert from a distance.

Visual Car Identification: The receiver features an LED indicator display that clearly shows which specific elevator is stuck. This allows security to respond quickly to the correct location without confusion.

Technical Data

Index (Table of Contents)

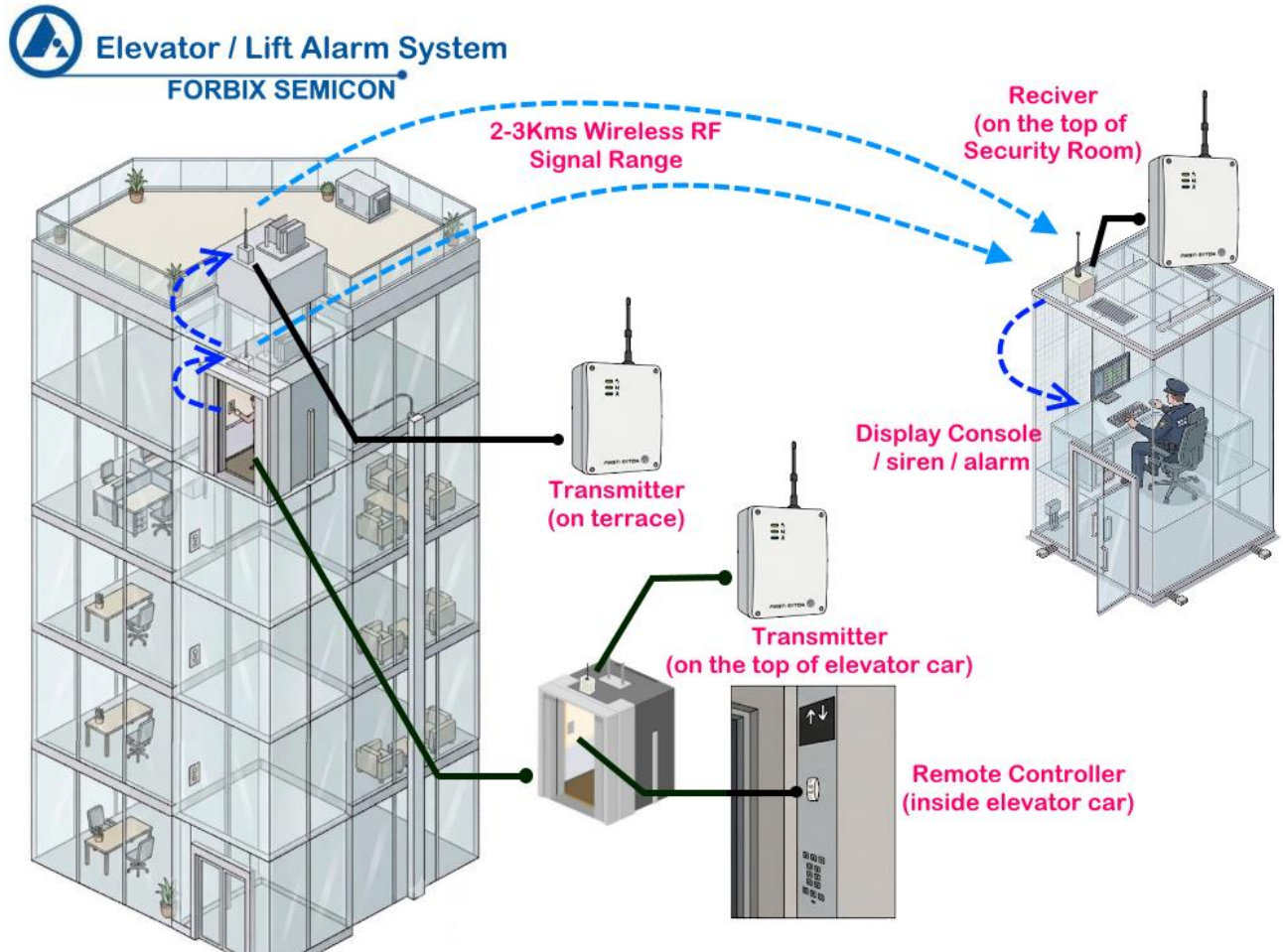
Elevator Alarm Devices, Mounting (Option1).....	Page 3
Elevator Alarm Devices, Mounting (Option2).....	Page 4
Transmitter Inside Elevator Cabin.....	Page 5
Elevator Transmitter Remote Operated.....	Page 6
Receiver Siren with Indicators.....	Page 7
Remote Controller Trigger Button.....	Page 8
Remote Controller Battery.....	Page 9
Regulated AC Power Supply Adapter.....	Page 10
Elevator Alarm System, Application Images.....	Page 11
Revision History.....	Page 13
Company.....	Page 14

Wireless Elevator Alarm System, FBX-ALBATROSS Technical Product Document

Product designed and manufactured by **FORBIX SEMICON®**

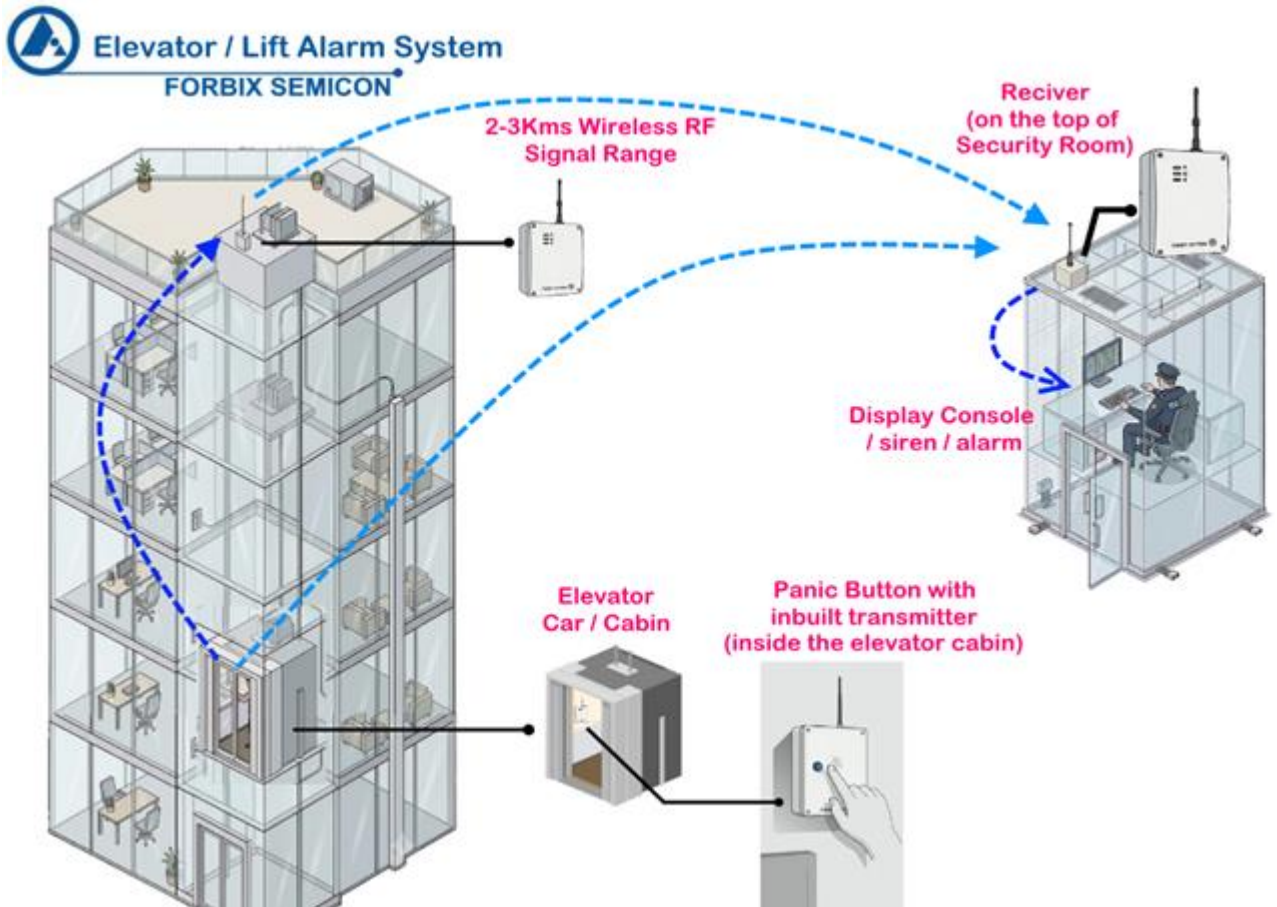
Elevator Alarm Devices, Mounting

Option 1: Remote Control Triggered Alarm



Elevator Alarm Devices, Mounting

Option 2: Direct Triggered Panic Alarm



Transmitter Inside the Elevator Cabin



Precautions and mounting locations:

Device can be mounted on wall / pole etc.
Outdoor installations keep away from direct sunlight / rain.
Keep away from metallic enclosures

Range of communication:

2-3Kms outdoors in open Line of Sight [LoS]
Signal range can vary from 500m to 8Kms (depending on environmental conditions)

Mechanical:

Enclosure type: ABS plastic (color white)
Receiver unit size: 200 x 150 x 70 mm
Receiver unit weight: 220 gms

Environmental Requirement:

Operating Temperature: 0°C to 40°C
Storage Temperature: 5°C to 25°C
Relative Humidity: 5% (0°C) ~ 95% (40°C) RH

Features:

1 button transmitter
Push button is a bounce back type.
(Button life: 100,000 pushes)
On press corresponding action is taken at the receiver unit (LEDs / Sirens / Relay / Hooter / Display)

Technical details:

Transmitter PA +30dbm
Operating frequency: 315 – 480 MHz
System operates works on signal hop mechanism. Signal transmission happens at more than 12-15 predefined frequencies
Modulation type: GFSK
Radio IC: CC1100 (Chipcon/TI) sub-GHz frequency
Data packet error correction mechanism: FEC

Operating voltage:

12 Volt (220AC/12VDC adapter power supply)
Customized designs with 5VDC USB input
Users can also plug to any 12V external battery. Active working hours depends on the battery power

RF antenna:

Wire coil antenna / metal antenna / rubber duck / spiral with 30cm-100cm 50 ohms wire (depends on environment necessity)

Applications:

Elevator Alarm – The transmitter device needs to be placed inside the elevator car / cabin. With a long press the SOS signal reaches the receiver and sounds a loud alarm

Elevator Transmitter Remote Operated



Features (Dual Mode Triggering):

Two Ways to Trigger:

The long range elevator transmitter unit can be activated either by its built-in push buttons (located on the enclosure)

OR

by external wireless short-range remote controllers, offering flexible operation without physical access to the transmitter.

Strategic Transmitter Placement:

Because the transmitter can be triggered remotely, it can be installed at an elevated, interference-free location (rooftop, top of building, apartment terrace, water tower, telecom pole, or hilltop) to maximize the 2–3 km long range signal, while users remain safely or conveniently at a distance.

Signal Range:

The wireless SOS signal can be initiated by the remote controller can cover a signal range of 30-40m indoors (inside elevator shaft) or 80-100m in open line of sight.

Customized feature: In case a person presses the remote controller by mistake (like a false alarm), pressing the red button on the remote deactivates the alarm.

Top button (on the short-range remote or a dedicated remote button) → triggers the long range transmitter → receiver turns ON the corresponding relay and LED.

Bottom button (or second button on the same remote) → triggers the long range transmitter → receiver turns OFF the same relay and LED.

Complete Signal Chain:

Short-range remote (30–120m) → Long range transmitter (wall/pole mounted) → RF signal over 2–3 km → Receiver → ON/OFF control of LED and Siren

Receiver Siren with indicators



Precautions and mounting locations:

Device can be mounted on wall / pole etc.
Outdoor installations keep away from direct sunlight / rain.
Keep away from metallic enclosures

Range of communication:

2-3Kms outdoors in open Line of Sight [LoS]
Signal range can vary from 500m to 8Kms (depending on environmental conditions)

Mechanical:

Enclosure type: ABS plastic (color white)
Receiver unit size: 200 x 150 x 70 mm
Receiver unit weight: 220 gms

Environmental Requirement:

Operating Temperature: 0°C to 40°C
Storage Temperature: 5°C to 25°C
Relative Humidity: 5% (0°C) ~ 95% (40°C) RH

Features:

Long range receiver with 8 LED indicators
Each transmitter SOS signal corresponds to a LED with number 1 to 8. Inbuilt 108 decibel loud siren alarm (when one or more transmitter sends signals). Customized connections to external electrical control devices is possible with respective driver integration to Sirens / Relay / Hooter / Display etc.

Technical details:

Receiver sensitivity: – 112 dbm
Operating frequency: 315 – 480 MHz
System operates works on signal hop mechanism. Signal transmission happens at more than 12-15 predefined frequencies
Modulation type: GFSK
Radio IC: CC1100 (Chipcon/TI) sub-GHz frequency
Data packet error correction mechanism: FEC

Operating voltage:

12 Volt (220AC/12VDC adapter power supply)
Users can also plug to any 12V external battery. Active working hours depends on the battery power

Customized designs with 5VDC USB input (only for LED indication and buzzer). For siren 12VDC is mandatory.

RF antenna:

Wire coil antenna / metal antenna / rubber duck / spiral with 30cm-100cm 50 ohms wire (depends on environment necessity)

Customized Designs:

Receiver unit can have inbuilt low power transmitter to relay the signals to a nearby siren, indicator or VGA monitor. This feature makes it compatible with our other 5XX series receiver consoles.

Remote Controller Trigger Button

Model: FBX521



Features:

3 buttons

RED light indicator, glows when any button is pressed

Top button (ON) => send ON/CALL signal to the receiver

Bottom button (OFF) => send OFF/CANCEL signal

Center button (optional), function of which can be altered as per application requirement

Technical details:

Transmitter PA +10dbm

Operating frequency: 315 – 480 MHz

System operates works on signal hop mechanism. Signal transmission happens at more than 12-15 predefined frequencies

Modulation type: GFSK

Radio IC: CC1100 (Chipcon/TI) sub-GHz frequency

Data packet error correction mechanism: FEC

Battery and operating voltage:

12 Volt (DC battery)

Battery model: 23A

Battery type: Alkaline (dry)

Battery replaceable: Yes

Battery rechargeable: No

Battery mounting: Back cover

Battery life: 3-4years, depending on the usage

RF antenna:

PCB trace antenna / wire coil antenna / metal antenna (depends on environment necessity)

Mounting provisions:

Remote controller can be carried in hand or mounted on the wall using a jacket provided along with the package

Application and features:

Nurse call system for hospitals: remote with patients

Steam bath sauna rooms / spas / restaurants etc.

OPD token system for dispensaries: remote with doctors

Office peon calling system: remote with clerk / manager

Guest house attendant call unit: remote with customers in room

Precautions and mounting locations:

Remotes can be hand operated or mounted on the a door / wall / bed / table or any flat surface

Easy mounting of remote jacket with 2 screws

For indoor purpose use only

Keep away from metallic enclosures

Do not connect the battery in opposite direction

Range of communication:

30-40 meters indoors (depending on environmental condition)

100-150 meters outdoors (in open line of sight)

Pressing the button for at least 2-3 seconds improves the range of communication

Mechanical:

Enclosure type: ABS plastic (color white)

Remote controller size: 120 x 40 x 20 mm

Remote controller weight: 45 gms

Environmental Requirement:

Operating Temperature: 0°C to 40°C

Storage Temperature: 5°C to 25°C

Relative Humidity: 5% (0°C) ~ 95% (40°C) RH

Remote Controller Battery

Model: A23



Important Note:

This product (Model: A23 12V Alkaline Battery) is sourced from a qualified vendor. FORBIX SEMICON® performs quality verification at the batch level to ensure baseline specifications are met prior to distribution. However, as a non-manufactured part, this adapter is expressly excluded from the standard FORBIX SEMICON® product warranty.

Environmental Requirement:

Operating Temperature: 0°C to 40°C
Storage Temperature : 5°C to 55°C
Relative Humidity : 5% (0°C) ~ 95% (35°C) RH
≥90 % remaining capacity after 12 months storage
Storage should not be more than Max. 3 yrs.

Mechanical:

Unit Weight: 7.9 gms
Height: 27.70 – 28.50 mm
Diameter: 9.90 – 10.6 mm
Positive Terminal Head Diameter: 5.2 – 5.8 mm

Battery type: Alkaline

Composition: Manganese Dioxide (mercury free) Battery model: A23

Chemical System: Zn / KOH-H₂O / MnO₂ Conditions

Nominal voltage: 12 V

Open circuit voltage: 12.3...12.9 V

New battery 12.2...12.9 V

Voltage drop 10.8...10.5 V after 1 year storage at 20°C all measurements at 22 ± 2°C ambient

Capacity rated: 50 mAh discharge under 10kΩ load 24hours/day

End Voltage (EV): 6.0V minimum: 47 mAh discharge under 10kΩ load; 24hours/day

End Voltage (EV): 6.0V Standard discharge time nominal: 55 h at 10kΩ load new battery

EV: 6.0V MAD: (minimum average 50 h at 10kΩ load after 12 months storage at 20°C duration)

EV: 6.0V 52 h at 10kΩ load for IQC measurement EV: 6.0V (tested within 30 days after delivery)

Discharge currents standard: 0.05 mA max.

recommended current under continuous discharge: 0.5 mA max. recommended current under pulse discharge: 15 mA

Regulated AC Power Supply Adapter

Model: FBXADP12V2A



Important Note:

This product (Model: FBXADP12V2A 12V 2A Power Supply Adapter) is sourced from a qualified vendor. FORBIX SEMICON® performs quality verification at the batch level to ensure baseline specifications are met prior to distribution. However, as a non-manufactured part, this adapter is expressly excluded from the standard FORBIX SEMICON® product warranty.

Environmental Requirement:

Operating Temperature: 0°C to 40°C

Storage Temperature: 5°C to 25°C

Relative Humidity: 5% (0°C) ~ 95% (40°C) RH

Mechanical:

Enclosure: 80mm (L) × 50mm (W) × 30mm (H) Input

Connector : 2 Pin Input plug

Out Cord: UL1185 18AWG VW-1 80° 300V, FT1 Line with word on the cord Length: 0.6m - 1.2m

DC Plug : 5.5mm × 2.1mm × 12mm

Input Characteristics:

Rated Voltage: 100 – 240V AC Variation

Range: 90 – 264V AC

Rated Frequency: 50/60Hz

Variation Frequency: 47 – 63Hz

Input Current: 0.6A Max. @ Any input AC voltage & output full load

Inrush Current: 35A Max. Cold start @ 240V AC input, rated output load & 25°C ambient

AC Leakage Current: 0.25mA Max. @ 240V AC input

Output Characteristics:

Voltage: 12V

Min. Load: 0.01A

Rated Load: 2A

Output Power: 24W

Combined Load / Line Regulation:

Voltage: 12V

Min. Load: 0.01A

Rated Load: 2A

Line Regulation: ± 1%

Load Regulation: ± 3%

Ripple and Noise :

Under normal voltage & nominal load, the ripple & noise are as follows when measure with Max. Bandwidth of 20MHz & parallel 10µF electrolysis capacitor & 0.1µF ceramic capacitor crossed connect at testing point.

Ripple & Noise (Max.): 120mVp-p

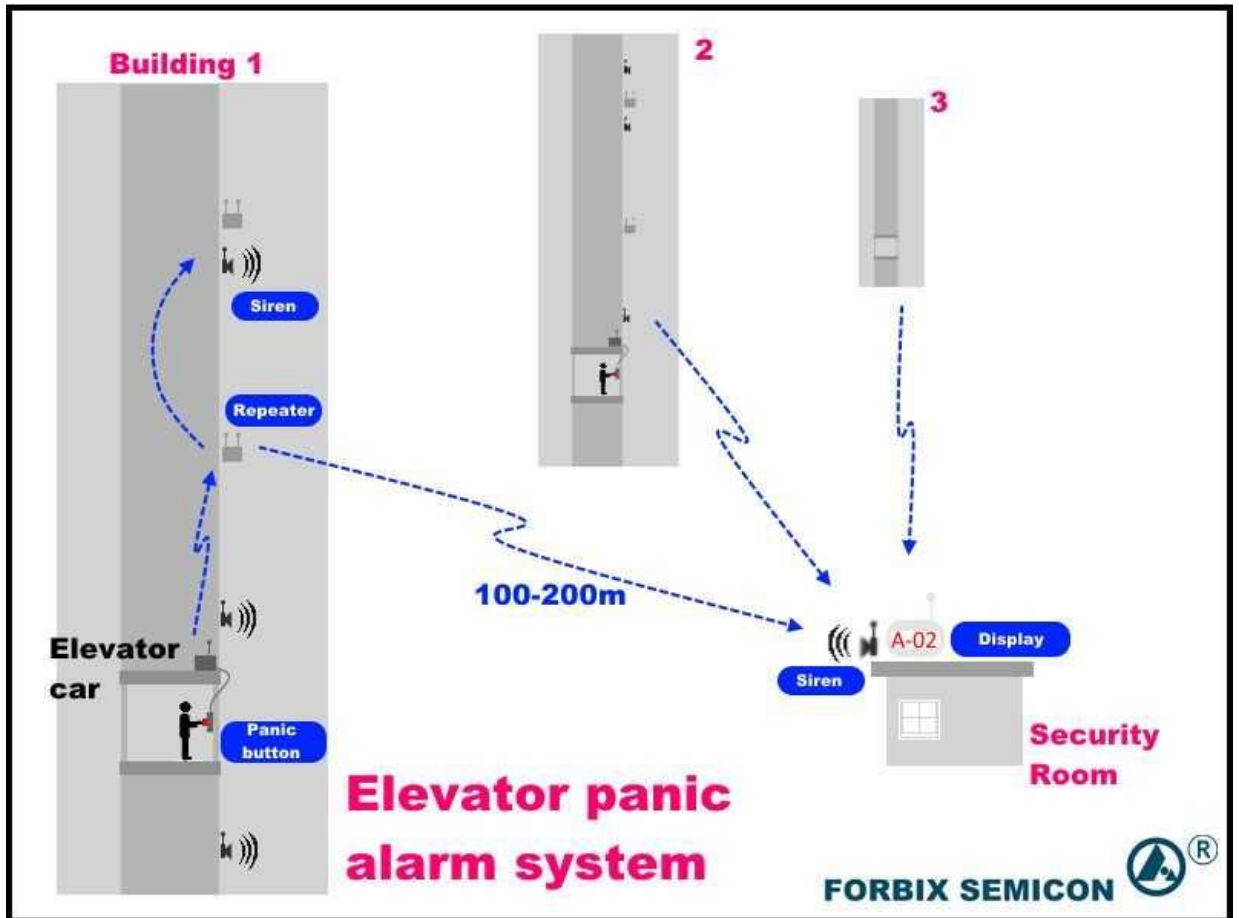
Turn on Delay Time: 2S Max. @ 115V AC input and output Max. Load

Rise Time: 40ms Max. @ 115V AC input and output Max. Load

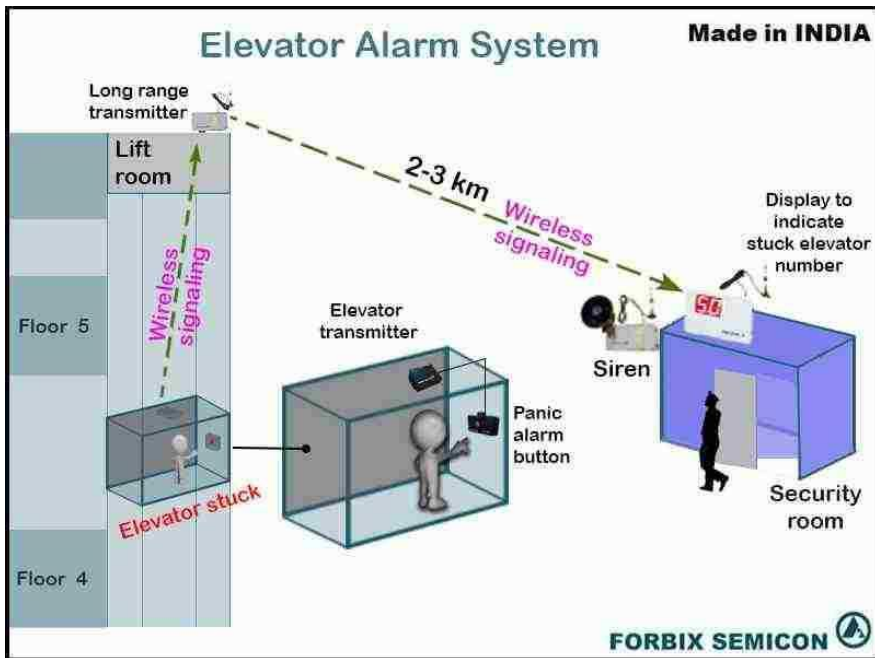
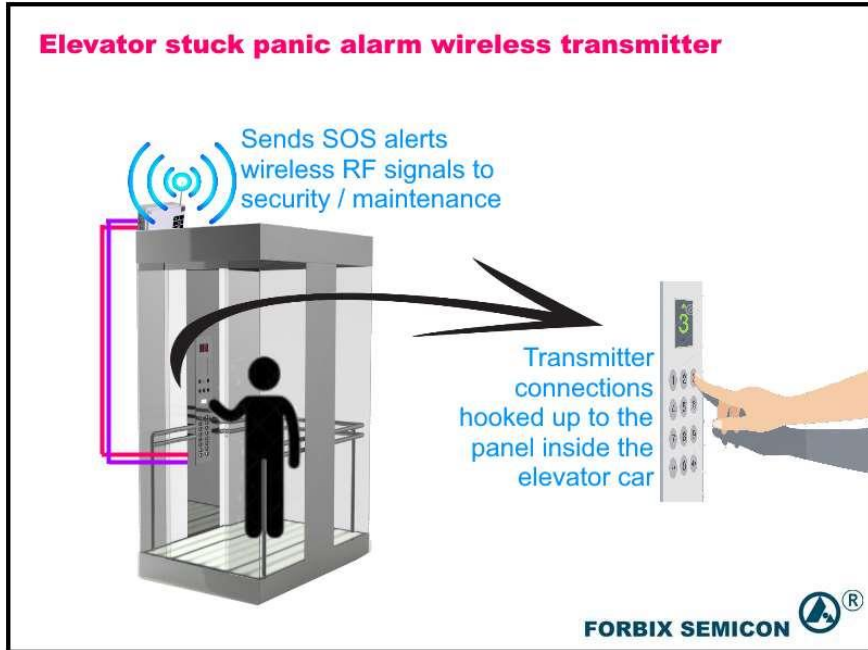
Hold Up Time: 5msec Min. @ 115V AC input and output Max.

Load Efficiency: Average efficiency 87.4% minimum @ 25%, 50%, 75% & 100% of full-loading and 230V AC input (After warm up 30 minutes).

Elevator Alarm System, Application Images



Elevator Alarm System, Application Images (contd...)



Revision History

Version	Changes	Time	Verified	Approved
v1.0	Initial Release Copy	Apr'2026	Yes	-

Company

Regd. Office:

FORBIX SEMICON® Technologies Private Limited

Plot No. 77, JBR Tech Park, 6th Road,
Whitefield, Bangalore
India, Pin – 560066

Legal details:

CIN:U31909KA2021PTC156093

PAN:AAECF8700F

HSN:8542 9000

GSTIN:29AAECF8700F1ZO

Trade Mark No.:4216274, Class 9

Subsidiary Division:

FORBIX OÜ

Harju maakond, Tallinn,
Kesklinna linnaosa,
Sakala tn 7-2, 10141
Estonia

Legal details:

Registry Code: 14366377

VAT No: EE102037683

Website: <https://www.forbixindia.com>

Email: sales@forbixindia.com