

Forend Early Streamer Emission (ESE) lightning conductors use active ionization system to capture atmospheric electrical discharges and conduct them to the ground. This system is characterized by its efficiency ΔT which is proved in the evaluation test (according to NFC 17-102:2011, Annexe C) and the area protected is determined according to its efficiency.

Now with the help of Smart Box monitoring system, the use of Forend ESE lightning conductor is more effective, providing autonomous connectivity and power supply.

FEATURES

- Internal ion generator
- 107m protection radius in 5m elevation Level 4
- Body made of stainless steel AISI 316L
- IP 67 protection class
- Working temperature: -40°C to + 120°C
- Universal ESE adaptor suitable with all kind of down conductors
- Smart Box IoT monitoring system
- Accessible via Windows, IOS and Android devices any time and in any part of the world
- No external power supply required
- No local connection required
- Universal Smart Box fixing clamp suitable with all kind of poles
- Expected lifespan of 25 years

STANDARDS

- NFC 17.102-2011
- UNE 21.186-2011
- FD C17-108
- IEC 62 561-6-2018

MONITORING MAIN FEATURES

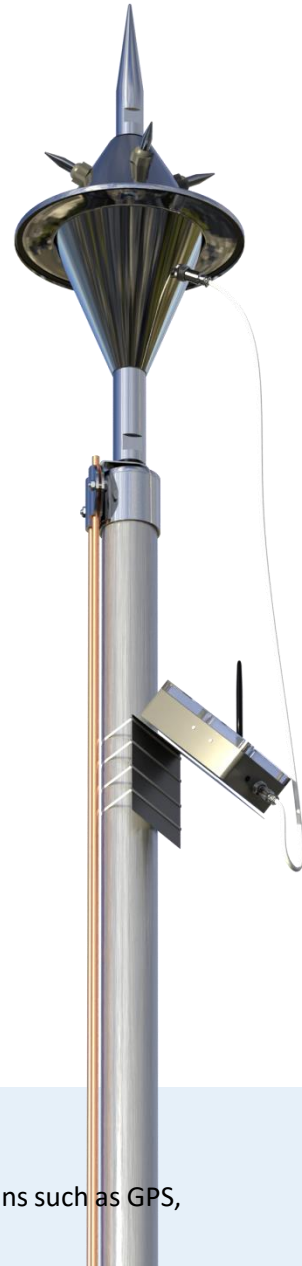
Smart Box is equipped with two main functions along with the supporting functions such as GPS, enviromental temperature, battery health etc.

1 ESE TERMINAL TESTER

Smart Box automatically tests and saves the functional status of the lightning rod system at certain time intervals in adjustable periods.

2 STRIKE COUNTER

Smart Box records lightning strikes and sends real time alert via application notification and email.



FOREND PETEX-L



$\Delta T: 60\mu s$



CHARACTERISTICS

Ref. No: F10115

- AISI 316L Stainless steel
- Maximum coverage area according to NFC 17.102-2011
- Testable via all type of Forend testers and Smart Box
- Fully tested and certified by accredited laboratories
- 5 years warranty

R_p (m)	PETEX-L $\Delta T: 60\mu s$			
h (m)	LEVEL I	LEVEL II	LEVEL III	LEVEL IV
2	31	35	39	43
3	47	52	58	64
4	63	69	78	85
5	79	86	97	107
6	79	87	97	107
8	79	87	98	108
10	79	88	99	109
20	80	89	102	113

Complies with NFC 17.102:2011 and UNE 21.186:2011 standards

TECHNICAL INFORMATION

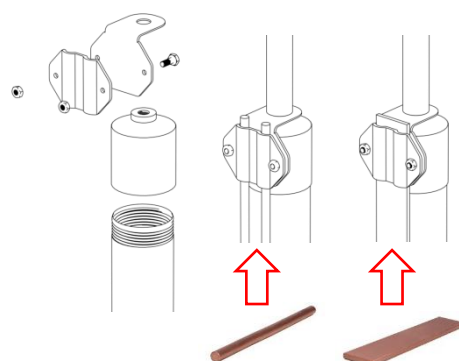
PETEX-L	
EFFICIENCY	
Emission time	60 μs
Protection radius (5m elevation)	107 m (Level 4)
Test point	Suitable with IoT and wired tester
Lightning current withstanding	150 kA (10/350 μs)
MECHANICAL STRUCTURE	
Material	316L grade stainless steel
Protection standard	IP67
Weight	2,50 Kg
Conductive rod	Solid 30mm with 700mm ² section
Temperature range	-40°C ~ +80°C
Mounting size	2" threaded adaptor
Flat conductor range	30x2 mm to 40x5 mm
Round conductor range	2 x 50 mm ² to 2 x 120 mm ²
Wind speed	Up to 150mph (240kph)



Width: 17 cm



Height: 42 cm



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ΔT : Early streamer emission of an ESE lightning rod, determined by laboratory tests.

LEVEL: Level of protection required by a particular building, depending on the operations carried out and various other factors.

h (m): Distance between the lightning rod and the roof level, optimal: 6 meters.

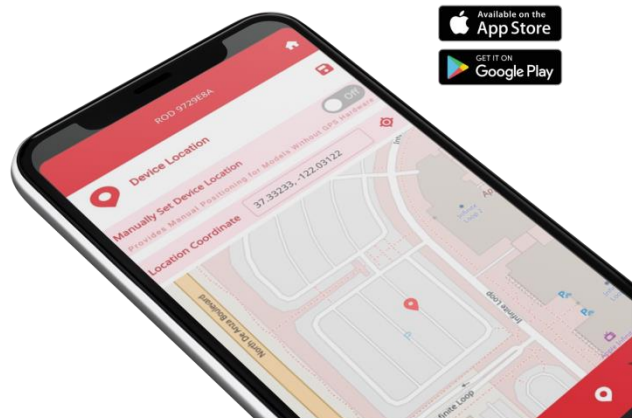
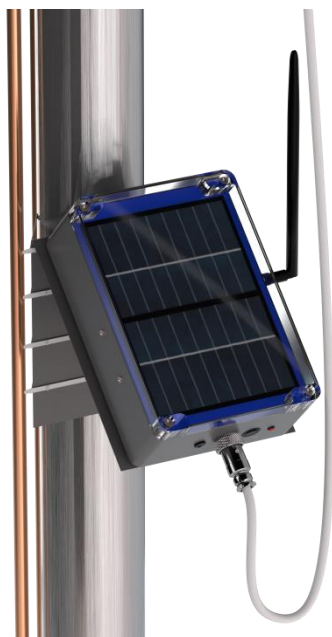
FOREND SMART BOX

CHARACTERISTICS

Ref. No: FSBX-V2

- All-in-one box with independent connectivity and power supply
- Ready-to-use with no complex configuration
- Accessible any time and any where all around the world
- Auto alert of events
- Date and time registration of last 100 events

Smart Control Software
NOW AVAILABLE



TECHNICAL INFORMATION

SMART BOX – V2

FUNCTIONALITY

Strike event	Counting and registering
ESE rod status	Automatic testing
Location	GPS map
Weather condition	Temperature measuring
Battery status	Charge and health rate
Connection status	Signal level

CONNECTIVITY

Communication	International IoT SIM card compatible with GPRS, 2G, 3G, 4G and LTE-M
Data transfer and storage	Cloud
Application compatibility	IOS, Android, Windows
Power source (Battery)	4.8 V, 800 mA rechargeable via solar panel

MECHANICAL STRUCTURE

Enclosure material	ABS
Mounting material / size	Stainless steel / up to 5" pole
Protection standard	IP67
Weight	1,40 Kg
Temperature range	-25°C ~ +85°C
Wind speed	Up to 150mph (240kph)

