

# French Quality World Wide Efficiency



www.lpsfr.com

Study – Prevention – Protection – Lightning



## Direct lightning strike

Known from time immemorial, lightning presents many dangers for properties and living beings. The meeting of a downward tracer and an upward tracer coming from a natural priming is called direct lightning strike.

To protect oneself from direct lightning strikes, it is necessary to set up an Outside Protection against Lightning Installation (O.P.L.I) including a lightning strike sensor : the lightning rod.

## Our Early Streamer Emitter lightning rods

The Early Streamer Emitter lightning rod (E.S.E.) **Paraton@ir**® is inspired by the last advances of our knowledge about the effects of lightning, electromagnetism, very high-voltage, fluid mechanics...

The natural priming principle is multiplied by our **Paraton@ir**® system thanks to its ionization device independently of any energy source.

The simplicity of its design and operation, the quality of its manufacturing and assembly enable us to ensure a lifetime warranty for each **Paraton@ir**® provided that our maintenance requirements are respected.



### 8 available colors

Colour is an aesthetic option and has no effect on the operating of **Paraton@ir**®.

**Its unique and patented system does not contain any fragile or unreliable electronic component or mechanical equipment.**

## Control, prevention and maintenance

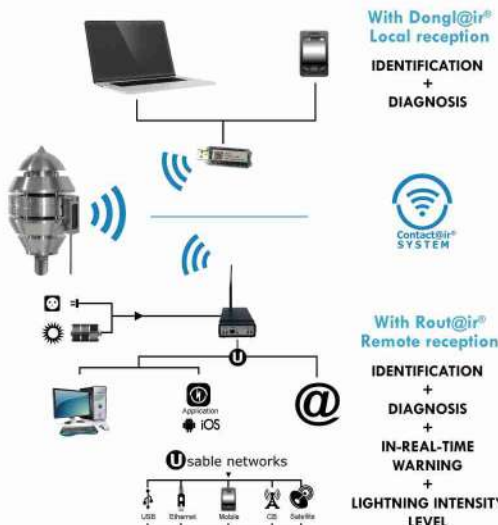
An outside protection against lightning with a lightning rod must be checked every year and after each lightning strike to ensure its good working order. .Source: NFC 17-102 – September 2011.

A **Contact@ir**® emitter can be optionally fitted on each **Paraton@ir**®. It then permanently communicates the **Paraton@ir**® working order status and its communication liability.

Used with the **Rout@ir**®, option, it transmits an in-real-time warning when a lightning strikes is picked up by the **Paraton@ir**®. **Contact@ir**® allows to initiate the check of the O.P.L.I. and takes part in risk prevention.



**Contact@ir**® is a self-sustaining and wireless system of products identification and diagnosis and of lightning strike communication.



The lightning strike counter is universal and can be set up on any types of existing conductors.

Watertight, reliable and robust, the lightning strike counter **LPS France** works without any power supply and records positive or negative lightning strikes when they come through.

Each counter is supplied as standard with a plug to connect the **Contact@ir**®, system, which enables the diagnosis of the counter, as well as the in-real time forwarding and recording of information.



LIGHTNING PROTECTION SYSTEMS FRANCE  
BP 80055 - F-33460 MARGAUX





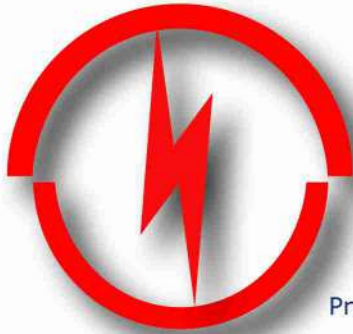
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# French Quality World Wide Efficiency

Study – Prevention – Protection – Lightning

## Our commitments

**By your side, LPS France commits itself to the quality of its whole range :**



An exclusive manufacture in our workshop in France.

Patented technologies.

Certified lab tested products.

Reliability and robustness proven under extreme conditions.

Laser marking for an optimal follow-up.

A 100% recyclable range of lightning rods.

A responsible commitment to a manufacturer's lifetime warranty\*\* (15 years minimum).

Control, maintenance and prevention eased thanks to the **Contact@ir®** system.

Products in compliance with NFC 17-102, UNE 21-186, EN 50164-1, EN 62305 standards.

**\***: Lifetime warranty on conditions



## Your protection

**To protect you, Lightning Protection Systems France offers a high quality set of "made in France" solutions and services, the efficiency of which is internationally recognized.**

**LPS France** is your expert for the protection of structures and their network facilities (electricity, communication) against lightning.

**LPS France** designs, manufactures and sets up protection against lightning installations for all your projects.

**LPS France** offers you turnkey protection against lightning solutions (lightning rods, surge arrestors), thanks to its worldwide network of exclusively licensed distributors and installers.



**LICENSED AGENT**

## Our solutions to protect your world

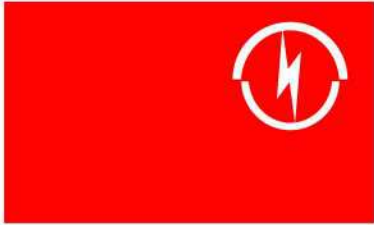


LIGHTNING PROTECTION SYSTEMS FRANCE  
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## Study – Prevention – Protection – Lightning



### The Paraton@ir® system

Years of experiments and numerous tests in laboratory and in real-world lightning conditions were necessary to develop this Early Streamer Emitter lightning rod.

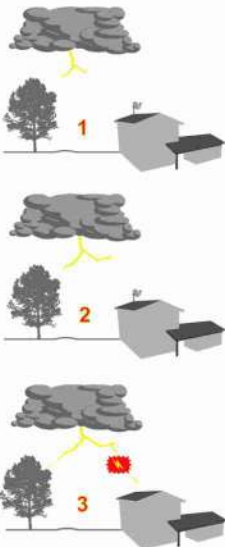
An aluminium alloy and polymeric materials, all patented, form the major part of our lightning rod. Without any fragile priming system, we designed the most reliable and sustainable product of the market.

Called **Paraton@ir®**, in reference to french language and to its communication abilities, our product is manufactured with utmost care in our workshop in France.

### Operation

**Paraton@ir®** creates the optimal conditions to generate a supernatural upward tracer before another natural upward tracer intercepts the surrounding lightning.

The action develops in three steps :



#### Paraton@ir® accumulates charge :

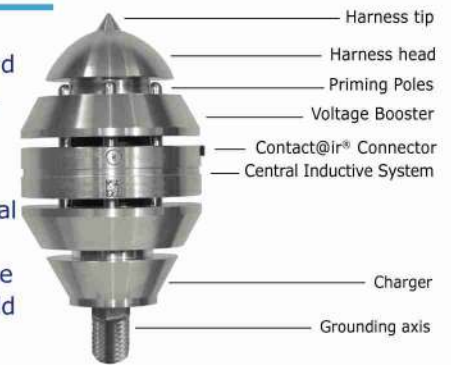
The element called "Charger" is designed to accumulate natural ions in the "Central Inductive System" (patented). This accumulation happens as quickly and in the same proportions as the increase in power of the ambient electric field generated by an upward tracer.

#### Paraton@ir® creates an electric field on a tremendous scale :

At the same time, thanks to the "Central Inductive System" and the "Voltage Boosters", **Paraton@ir®** creates a huge electrical field the charge of which is opposed to that of the natural electric field in presence and stimulates the "Harness head". According to their quantity, the "Priming poles" multiply the efficiency of the priming.

#### Harnessing and conduction by Paraton@ir® :

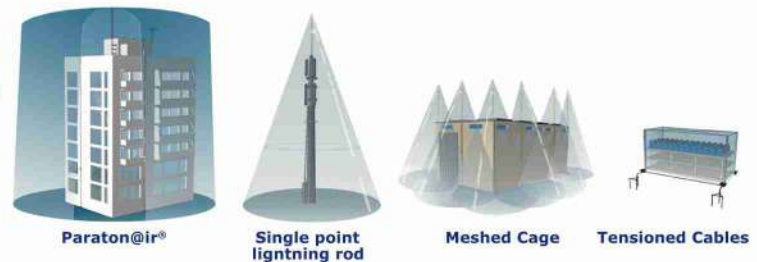
The priming of **Paraton@ir®** system attracts the upward tracer and creates the "lightning strike" conditions. Then the "Harness tip" leads the lightning current through its axis toward the ground conductors.



### Benefits

- ⚡ Optimal protection area
- ⚡ Remote diagnosis system\*
- ⚡ In-real-time warnings\*
- ⚡ Simple implementation
- ⚡ Low realization budget
- ⚡ Limited maintenance costs
- ⚡ Eight colours available\*
- ⚡ Lifetime warranty\*

\* : optional



	Paraton@ir®	Single point lightning rod	Meshed Cage	Tensioned Cables
Portection area	●●●●●	●●●●●	●●●	●●●
Portection of open areas	●●●●●	●●●●●	●●●●●	●●●
Study	●●●●●	●●●	●●●●●	●●●
Implementation	●●●●●	●●●●●	●●●●●	●●●
Qualification required for implementation	●●●	●●●●●	●●●●●	●●●●●
Aesthetic (Architecture integration)	●●●●●	●●●	●●●●●	●●●●●
Realization budget	●●●●●	●●●●●	●●●●●	●●●
Maintenance costs	●●●●●	●●●●●	●●●●●	●●●
Standards	NFC 17-102 + IEC 62305	IEC 62305	IEC 62305	IEC 62305
Appropriate structures	Any structure and its environment or open area	Small dimension structure : towers, antennas	Structure containing computer systems or pyrotechnic materials	Open storage area







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# Paraton@ir®

Communicant Early Streamer Emitter



## Study – Prevention – Protection – Lightning

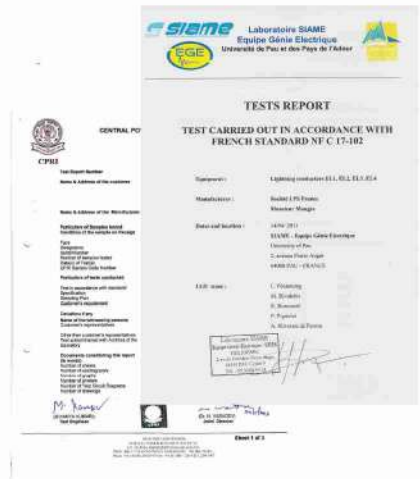
### Tests and validations



To know for a fact that we provide you with reliable, efficient and standard-compliant protection against lightning systems, **LPS France** products are systematically tested in laboratory and in the field to validate their operation, their efficiency and their sustainability before they are launched on the market.

Our products are developed in our own research laboratory. Validation tests were carried out with a higher requirement level than standards in recognized laboratories.

Those tests and validations come on top of studies and observations that were made in situ and of returns of experience enhanced by our remote communication system. Our laboratory and in the field experiments enable us to always be in the forefront of Research and Development.



### Protection radius

The protection radius of an Early Streamer Emitter lightning rod is related to its height (h) in proportion to the surface area to protect, its efficiency and the selected protection level.

$$R_p(h) = \sqrt{2rh - h^2 + \Delta h(2r + \Delta h)} \quad \text{when } h \geq 5m$$

Its calculation is made as follows :  
according to NFC 17-102 standard – September 2011

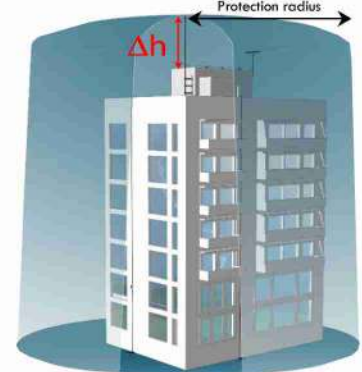
$$R_p(h) = h \times R_p(5) / 5 \quad \text{when } 2m \leq h < 5m$$

$R_p(h)$  (m)  $R_p(h)$ (m) stands for the protection radius at a given height h;

$h$ (m) stands for the height of the ESE end in a horizontal plane to the farthest point of the element to protect.

$r$  (m) 20m for the protection level I;  
20m for the protection level I  
30m for the protection level II  
45m for the protection level III  
60m for the protection level IV

$\Delta h$ (m)  $\Delta = \Delta T \times 10^5$   
The experience in the field shows that  $\Delta$  is equal to the efficiency obtained during the ESE evaluation tests.



The protection level is set according to numerous parameters including loss of life and economic risks, the average local lightning striking, the impact on environment, etc... To favour an ideal matching to the layout of the different premises to protect, **Paraton@ir®** is available with 4 power levels.



### Implementation

**Paraton@ir®** Early Streamer Emitter lightning rods are part and parcel of a complete protection against lightning system, including also downward conductors, grounding, etc...

Before its implementation, a protection against lightning system must be the object of an in-depth study. To provide an optimal security, this system must also be installed in compliance with the standards in force and the manufacturer's instructions.

To benefit from your product warranty, your protection against lightning system must imperatively follow those study and installation codes.

Our licensed partners (distributors, installers) are proficient in ensuring you the necessary conditions to the preservation of your warranty.







## Study – Prevention – Protection – Lightning

### Paraton@ir® 10

$\Delta t$ : 10  $\mu s$

Net weight  
1,800Kg

Packaging:  
260x180x110 mm

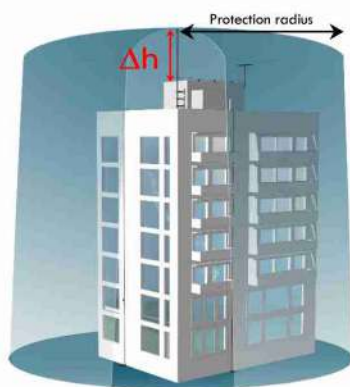
**LIFETIME WARRANTY\***

\* Contact@ir system needed  
see our Terms and Conditions



Colour has no influence on operation

### Protection radius



#### Protection radius in meters (m)

$\Delta h$ (m)	Protection levels			
	I	II	III	IV
2	8	11	13	15
3	12	16	19	24
4	17	26	26	34
5	21	29	32	43
10	23	36	37	48
20	24	40	41	55
60	30	48	53	64

In compliance with NFC 17-102 standard – Interpretation 007 April 2011. Datas validated by laboratory tests.



### Communication option

### REMINDER

An outside protection against lightning with a lightning rod must be checked every year and after each lightning strike to ensure its good working order. Source NFC 17-102 – September 2011.



#### To comply with this requirement :

A **Contact@ir®** emitter can be optionally fitted at any time on **Paraton@ir®10** as on any lightning rod of the range.

Then the **Contact@ir®** emitter permanently communicates the operating status as well as its communication reliability.

Used with the **Rout@ir®** option, it transmits an in-real-time warning when a lightning strike is picked up by **Paraton@ir®** and the lightning strike level.



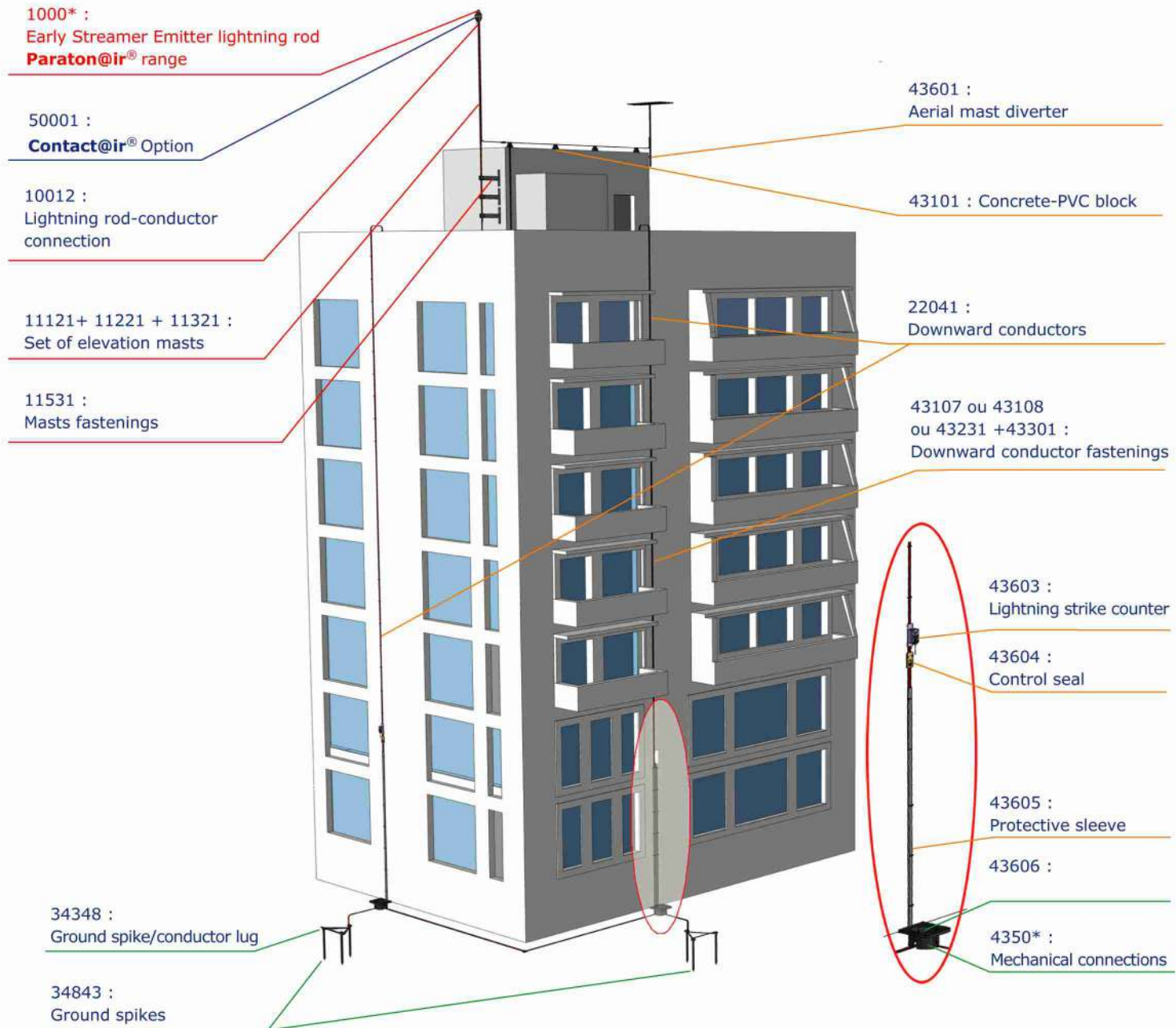




## Study – Prevention – Protection – Lightning

### Example of installation

The layout below proposes an example of protection against lightning system installation, with our products and accessories compliant with the standards in force (NFC 17-102, IEC 62-305...).



The composition and installation of a protection against lightning system depends on multiple factors including in particular the characteristics of building(s) to be protected and their environment.

To meet the requirements of the NFC 17-102 standard and provide you with an efficient protection, each installation must be the object of a preliminary study.

Our distributors and installers are proficient in this study and shall thus bring you the necessary conditions to ensure your security and the preservation of your warranty.







## Study – Prevention – Protection – Lightning

### Paraton@ir® 25

$\Delta t$ : 25  $\mu s$

Net weight  
1,600Kg

Packaging:  
260x180x110 mm

**LIFETIME WARRANTY\***

\* Contact@ir system needed  
see our Terms and Conditions

210 mm

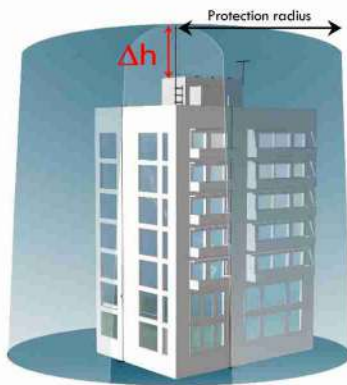


99mm



Colour has no influence on operation

### Protection radius



#### Protection radius in meters (m)

$\Delta h$ (m)	Protection levels			
	I	II	III	IV
2	17	19	23	26
3	25	29	34	39
4	34	39	46	52
5	42	49	57	65
10	44	51	61	69
20	45	52	63	75
60	45	52	65	79

In compliance with NFC 17-102 standard – Interpretation 007 April 2011. Datas validated by laboratory tests.



### Communication option

### REMINDER

An outside protection against lightning with a lightning rod must be checked every year and after each lightning strike to ensure its good working order. Source NFC 17-102 – September 2011.



#### To comply with this requirement :

A **Contact@ir®** emitter can be optionally fitted at any time on **Paraton@ir®25** as on any lightning rod of the range.

Then the **Contact@ir®** emitter permanently communicates the operating status as well as its communication reliability.

Used with the **Rout@ir®** option, it transmits an in-real-time warning when a lightning strike is picked up by **Paraton@ir®** and the lightning strike level.



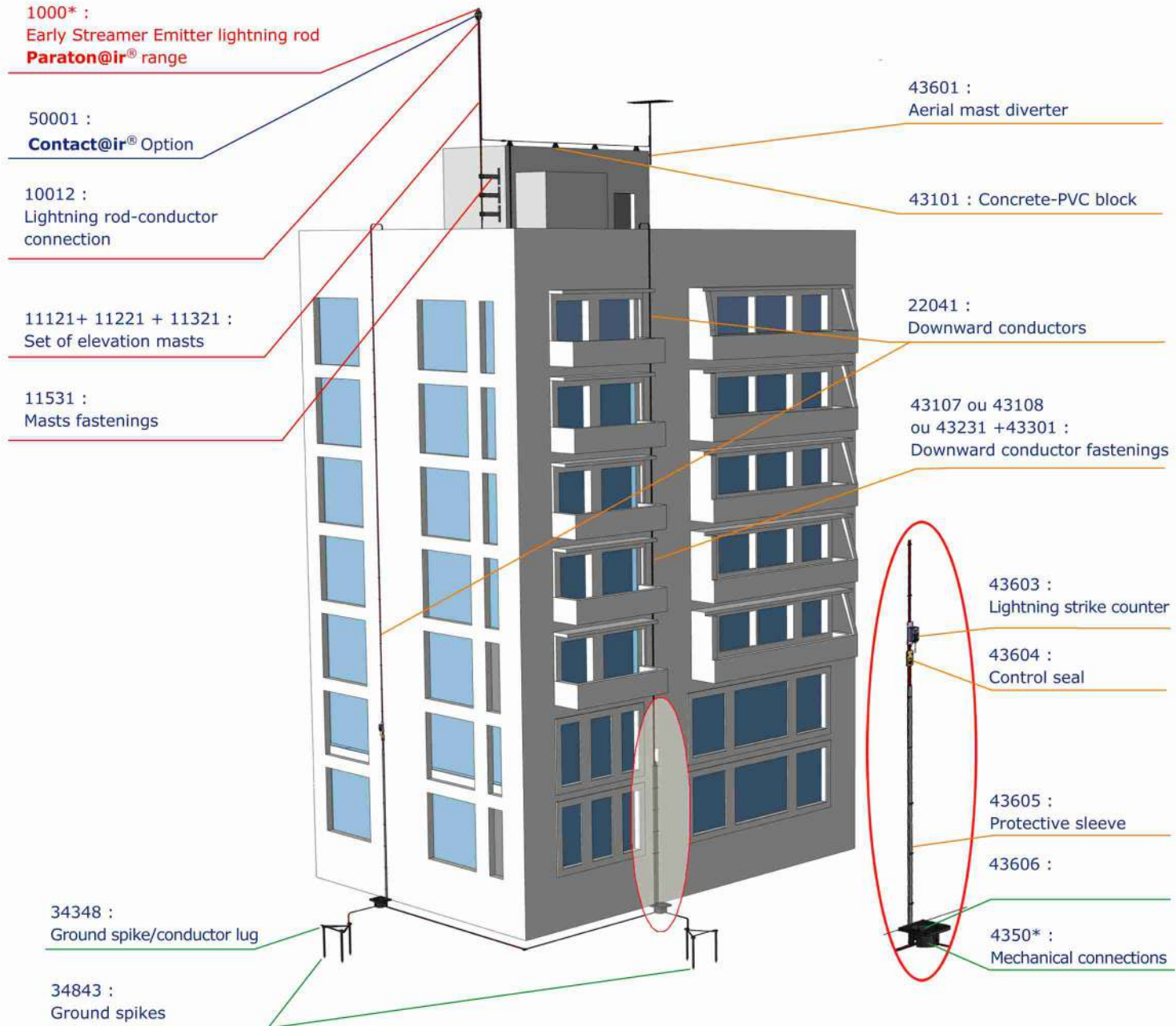




## Study – Prevention – Protection – Lightning

### Example of installation

The layout below proposes an example of protection against lightning system installation, with our products and accessories compliant with the standards in force (NFC 17-102, IEC 62-305...).



The composition and installation of a protection against lightning system depends on multiple factors including in particular the characteristics of building(s) to be protected and their environment.

To meet the requirements of the NFC 17-102 standard and provide you with an efficient protection, each installation must be the object of a preliminary study.

Our distributors and installers are proficient in this study and shall thus bring you the necessary conditions to ensure your security and the preservation of your warranty.







## Study – Prevention – Protection – Lightning

### Paraton@ir® 45

$\Delta t$ : 45  $\mu s$

Net weight  
1,610Kg

Packaging:  
260x180x110 mm

**LIFETIME WARRANTY\***

\* Contact@ir system needed  
see our Terms and Conditions

210 mm

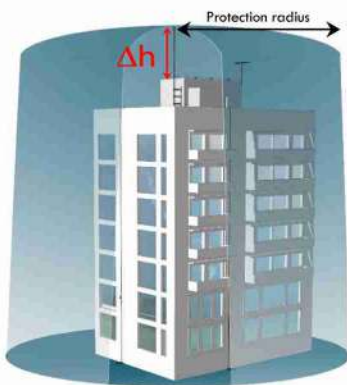


99mm



Colour has no influence on operation

### Protection radius



#### Protection radius in meters (m)

$\Delta h$ (m)	Protection levels			
	I	II	III	IV
2	25	28	32	36
3	38	41	48	53
4	51	57	65	72
5	62	71	81	89
10	63	72	83	92
20	65	74	86	97
60	66	75	90	105

In compliance with NFC 17-102 standard – Interpretation  
007 April 2011. Datas validated by laboratory tests.



### Communication option

### REMINDER

An outside protection against lightning with a lightning rod must be checked every year and after each lightning strike to ensure its good working order. Source NFC 17-102 – September 2011.



#### To comply with this requirement :

A **Contact@ir®** emitter can be optionally fitted at any time on **Paraton@ir®45** as on any lightning rod of the range.

Then the **Contact@ir®** emitter permanently communicates the operating status as well as its communication reliability.

Used with the **Rout@ir®** option, it transmits an in-real-time warning when a lightning strike is picked up by **Paraton@ir®** and the lightning strike level.



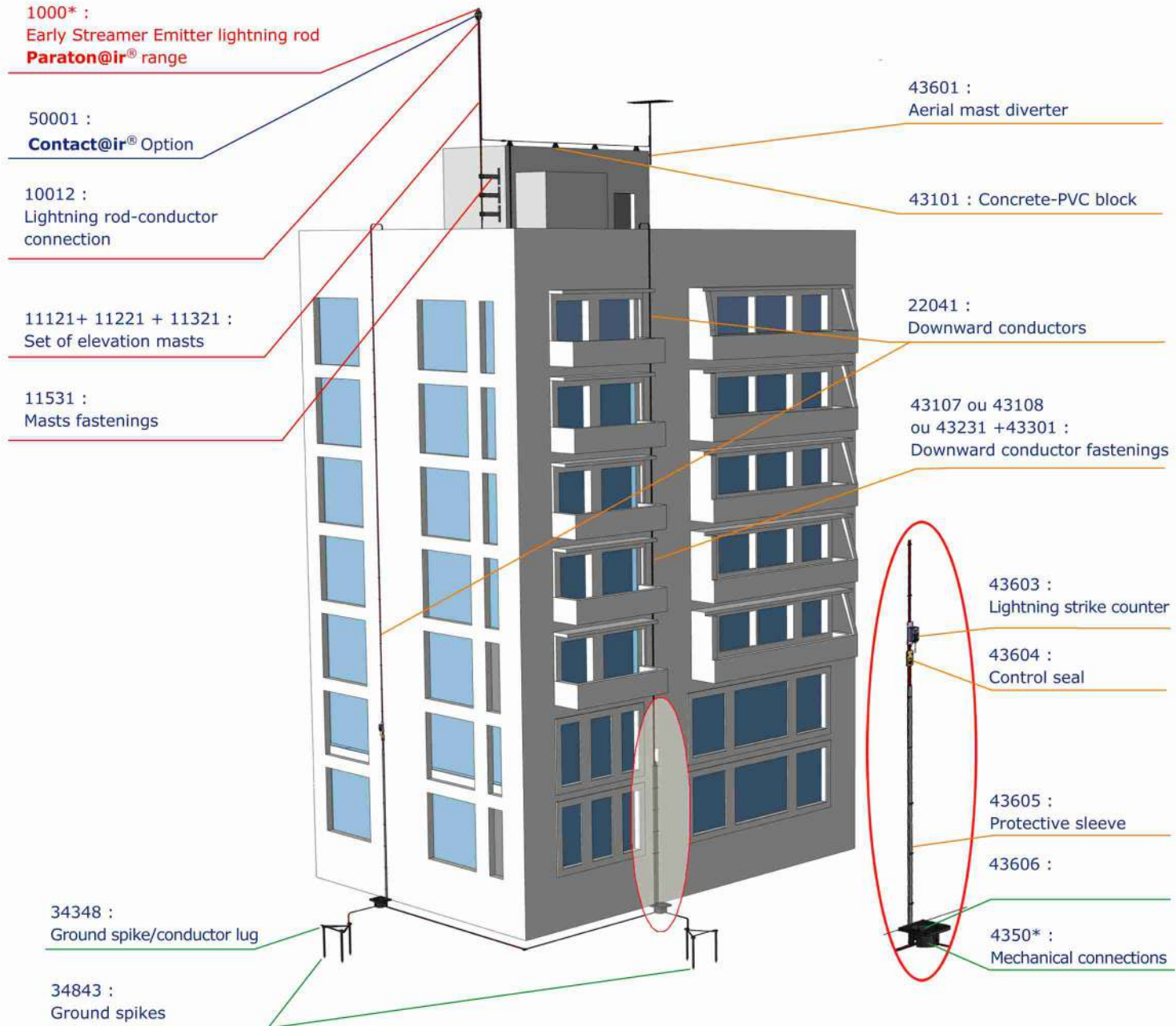




## Study – Prevention – Protection – Lightning

### Example of intallation

The layout below proposes an example of protection against lightning system installation, with our products and accessories compliant with the standards in force (NFC 17-102, IEC 62-305...).



The composition and intallation of a protection against lightning system depends on multiple factors including in particular the characteristics of building(s) to be protected and their environment.

To meet the requirements of the NFC 17-102 standard and provide you with an efficient protection, each installation must be the object of a preliminary study.

Our distributors and installers are proficient in this study and shall thus bring you the necessary conditions to ensure your security and the preservation of your warranty.







## Study – Prevention – Protection – Lightning

### Paraton@ir® 60

$\Delta t$ : 60  $\mu s$

Net weight  
1,625Kg

Packaging:  
260x180x110 mm

**LIFETIME WARRANTY\***

\* Contact@ir system needed  
see our Terms and Conditions

210 mm

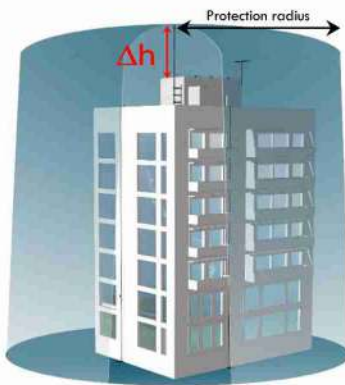


99mm



Colour has no influence on operation

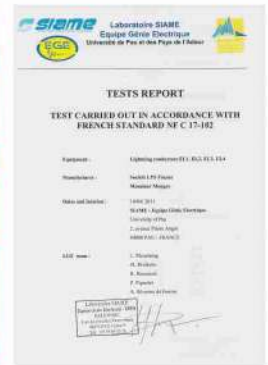
## Protection radius



### Protection radius in meters (m)

$\Delta h$ (m)	Protection levels			
	I	II	III	IV
2	32	34	40	44
3	48	52	59	65
4	64	69	78	87
5	79	86	97	107
10	79	88	99	109
20	80	89	102	113
60	80	90	105	120

In compliance with NFC 17-102 standard – Interpretation 007 April 2011. Datas validated by laboratory tests.



## Communication option

### REMINDER

An outside protection against lightning with a lightning rod must be checked every year and after each lightning strike to ensure its good working order. Source NFC 17-102 – September 2011.



#### To comply with this requirement :

A **Contact@ir®** emitter can be optionally fitted at any time on **Paraton@ir®60** as on any lightning rod of the range.

Then the **Contact@ir®** emitter permanently communicates the operating status as well as its communication reliability.

Used with the **Rout@ir®** option, it transmits an in-real-time warning when a lightning strike is picked up by **Paraton@ir®** and the lightning strike level.



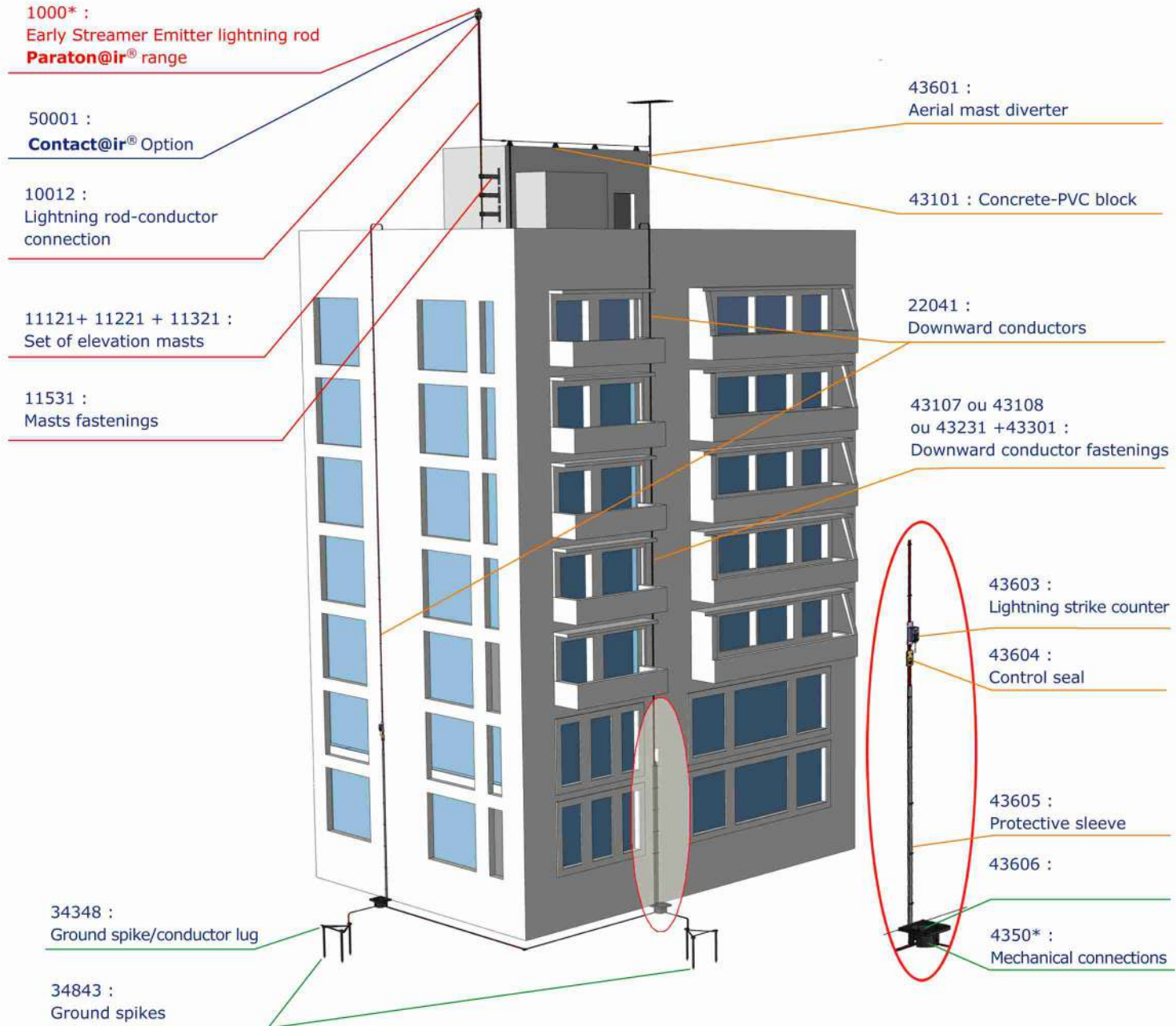




## Study – Prevention – Protection – Lightning

### Example of installation

The layout below proposes an example of protection against lightning system installation, with our products and accessories compliant with the standards in force (NFC 17-102, IEC 62-305...).



The composition and installation of a protection against lightning system depends on multiple factors including in particular the characteristics of building(s) to be protected and their environment.

To meet the requirements of the NFC 17-102 standard and provide you with an efficient protection, each installation must be the object of a preliminary study.

Our distributors and installers are proficient in this study and shall thus bring you the necessary conditions to ensure your security and the preservation of your warranty.







# Compt@ir®

The communicant counter



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## Study – Prevention – Protection - Lightning



### The lightning strike counter

The lightning strike counter **Compt@ir®** consists of a 6 digits display. Each lightning strike is recorded when it comes through by incrementing one unit (the rightmost number).

Watertight (IP65), robust and reliable, it operates without any power supply and records positive or negative lightning strikes.

The lightning strike counter displays the total number of lightning strikes having struck the Outside Protection against Lightning Installation (OPLI).

It is necessary to regularly watch over the display for a good follow-up of the installation. The lightning strike counter is essential for the good maintenance of the OPLI (cf. NFC 17-102 : a checking shall be done after each lightning strike).

This regular monitoring doesn't require a travel with Contact@ir+Rout@ir option. On top of that, you will be warned in real time in case of lightning strike event.)

It can be set up and works on any type of existing downward conductor (flat, round, ...) thanks to its universal fastenings. **Compt@ir®** lightning strike counters are compliant with the standards in force (NFC 17-102, NF EN 50164-6).

### Dimensions



<b>Height</b>	14.50 cm
<b>Width</b>	5.50 cm
<b>Depth</b>	5.50 cm
<b>Weight</b>	0.285 kg

**LIFETIME WARRANTY\***



### Installation

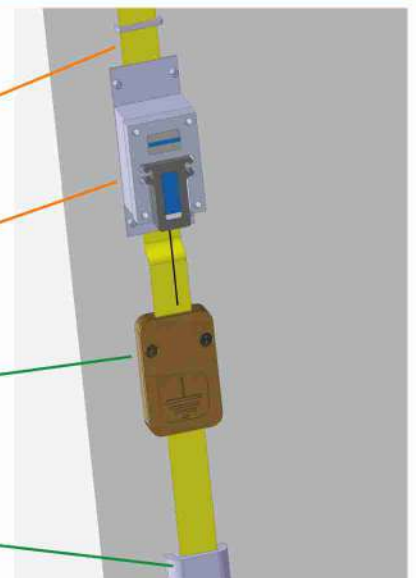


**22041 :**  
**Downward conductor**

**43603 :**  
**Lightning strike counter**

**43604 :**  
**Control seal**

**43605 :**  
**Protective sleeve**



"If the installation is equipped with a lightning strike counter, it is appropriate for the latter to be installed on the most direct downward conductor and to be preferably located right above the control seal."  
NFC 17-102 – September 2011, (art. 5.3.8).



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\* Contact@ir system needed  
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Compt@ir®

The communicant counter

## Study – Prevention – Protection – Lightning

### REMINDER

An outside protection against lightning with a lightning rod must be checked every year and after each lightning strike to ensure its good working order. Source NFC 17-102 – September 2011.

## Remote communication option



Contact@ir  
SYSTEM

**Compt@ir®** lightning strike counters are supplied as standard with a plug to connect the **Contact@ir®** system.

A **Contact@ir®** emitter can be optionally fitted on each **Compt@ir®** lightning strike counter.

Then the **Contact@ir®** emitter permanently communicates the **Contact@ir®** lightning strike counter operating status as well as its communication reliability. This communication occurs without any physical link.



## Servicing and maintenance of your installation



If used with the Rout@ir option, when lightning strikes the installation, **Compt@ir®** records and transmits the event by sending an email warning

Once the lightning strike detected, a normative check will have to be performed in accordance with the articles 8.2 to 8.5 of the NFC 17-102 standard.

This check aims at ensuring the good order of the lightning protection installation and doing the necessary repairs of the installation.

Thanks to **Compt@ir®** and to the "lightning strike" warning, the lightning protection installation is being permanently watched over.



## Whatever your installation

A lightning protection has got an important service life. Thus, any installation requires a follow-up, checkings and regular maintenance to ensure its efficiency.

**Contact@ir®** system is a **LPS France** exclusive

If used with the **Rout@ir®** option, it enables you :

- ✓ To make a remote diagnosis of your installation at any time,
- ✓ To receive an in-real-time warning when your installation is thunderstruck,
- ✓ To know what was the intensity of the lightning strike, and thus know what type of check of your installation has to be done if need be.

The lightning strike counter **Compt@ir®** is universal and can easily be added to your lightning protection installation, whatever its type, its trademark and its age.

Once associated with a **Rout@ir®** , it enables you to benefit from the **Contact@ir®** system advantages without modifying your installation.



- ✓ Standards respected
- ✓ Warranties preserved
- ✓ Maintenance simplified
- ✓ Security ensured



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# Contact@ir® System



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## Study – Prevention – Protection – Lightning

### Wireless communication solution



A **Contact@ir®** emitter can be optionally fitted on each **Contact@ir Ready** product (**Paraton@ir®** range and **Compt@ir®** lightning strike counters).

Then the **Contact@ir®** emitter permanently communicates the operating status of the **Contact@ir Ready®** product as well as its communication liability. The communication is ensured by radio, without any physical link..

If used with the **Rout@ir®** option, it transmits an in-real-time warning when a lightning strike is picked up by the **Contact@ir Ready®** product and records it.

Efficient, reliable and easy-to-use, **Contact@ir®** system facilitates the control and maintenance of your lightning protection installation. **Contact@ir®** system favours lightning risk prevention.



### REMINDER

An outside protection against lightning with a lightning rod must be checked every year and after each lightning strike to ensure its good working order. Source NFC 17-102 – September 2011.

### The emitter

**Contact@ir®** emitter is supplied by a photovoltaic cell that ensures its autonomy.

The technology of this cell enables to get the system charged even in case of low luminosity and to ensure a 24-hour communication.

Communication is possible with a broadcast range from 30 up to 300m depending on the receiver, its position and environment.



**Contact@ir®** emitter can be fitted on the **Contact@ir Ready®** product during the assembly or at any time during the lifetime of the installation. This operation is simple, rapid, easy and has no effect on the protection efficiency.

For a perfect aesthetic, **Paraton@ir®** and **Contact@ir®** are available in eight colors.

Once the **Contact@ir Ready®** product ((**Paraton@ir®** or **Compt@ir®**) installed with its emitter plugged in, the product and its emitter must be registered on the server [www.contact-platform.com](http://www.contact-platform.com).

### Reception of information

The content of the information you receive and the type of receipt (local or remote) depend on the choice of receiver. There is two existing receivers : **Dongl@ir®** and **Rout@ir®**.

EQUIPEMENT				INFORMATION				
EMITTER	RECEIVER	RECEPTION <sup>(1)</sup>	READING		IDENTIFICATION <sup>(2)</sup>	DIAGNOSIS <sup>(3)</sup>	LIGHTNING WARNING <sup>(4)</sup>	INTENSITY
		LOCAL	PC OR MAC	Contact@ir® SOFT SOFTWARE				
			PC OR MAC ANDROID MOBILE OR PAD	Contact@ir® SOFT APP				
		REMOTE	ANY TYPE OF EQUIPMENT WITH AN INTERNET CONNECTION					

(1) : For a local reception, an on-site trip is necessary to collect the datas, Rout@ir enables a remote reception and consultation of datas thanks to an internet connection.

(2) : Shows the serial number, the type and the colour of the lightning rod or the serial number of the lightning strike counter, as well as the serial number of the emitter and potential datas entered by the user about the identified two linked products.

(3) : Indicates whether the **Contact@ir Ready®** product and the identified emitter are in good working order or not.

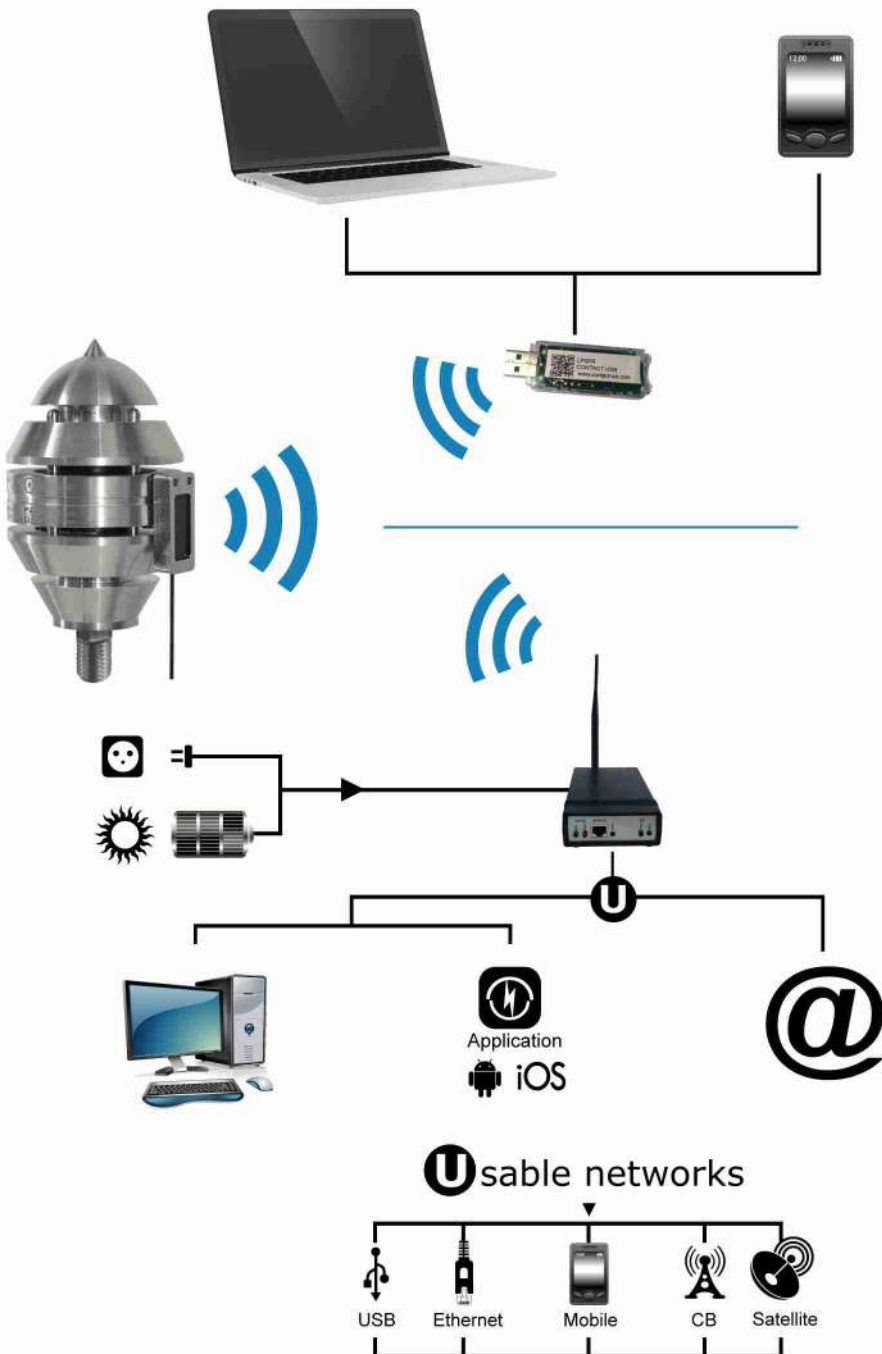
(4) : Records the lightning strikes received by the identified **Contact@ir Ready®** product, creates a user accessible history, and sends him an in-real-time warning email.







Study – Prevention – Protection – Lightning



With **Dongl@ir®**  
Local reception

**IDENTIFICATION**  
+  
**DIAGNOSIS**



With **Rout@ir®**  
Remote reception

**IDENTIFICATION**  
+  
**DIAGNOSIS**  
+  
**IN-REAL-TIME**  
**WARNING**  
+  
**LIGHTNING INTENSITY**  
**LEVEL**





# Contact@ir® System with Dongl@ir®



www.lpsfr.com

## Study – Prevention – Protection – Lightning

### Maintenance and servicing requirements to be met



An outside protection against lightning with a lightning rod must be checked every year and after each lightning strike to ensure its good working order.  
Source NFC 17-102 – September 2011, (art. 8.2).

Maintenance and servicing of your lightning protection installation are also necessary to preserve your manufacturer's and installer's warranties.

To ensure a total security, you must be certain of its efficiency at any time.

**Contact@ir®** system is an exclusive solution proposed by LPS France to meet normative requirements, preserve your warranties and ensure your security throughout the lifetime of your lightning protection installation.

## Why use Dongl@ir® ?

**Contact@ir®** system, if used with **Dongl@ir®** receiver, enables you to check the good working order of your product.

The transmission of data occurs by radio waves, without any physical link between the **Contact@ir®** emitter and the **Dongl@ir®** receiver.

In this way, **Dongl@ir®** facilitates and makes safer the diagnosis of a product often difficult to access, the intervening person not being constrained any more to get into a **risky situation to reach it**.

**Dongl@ir®** is a specific mean of diagnosis. It has to be used nearby the product (80 meters maximum).

Within a few seconds, your product is identified and the result of its diagnosis appears on your screen. You then immediately know if an intervention is necessary on your installation or not.

### A reliable and securing device.



## What are the necessary equipments ?



### The Contact@ir® emitter

Has to be connected to the **Contact@ir Ready®** product the diagnosis of which you wish to obtain, That is :



The **Paraton@ir®**



The **Compt@ir®**

The **Contact@ir®** emitter can be fitted on the **Contact@ir Ready®** product during the assembly or at any time during the life time of the installation.



### Dongl@ir®

Is provided in the form of an USB key and is plugged :



In your pad or Android mobile with a microUSB adapter.

In that case, the information will be read on the application **Contact@ir App®**.

A single **Dongl@ir®** enables to carry out the identification and the diagnosis of all the **Contact@ir Ready®** products the rights of which you hold.



In one of your PC or MAC USB port. In that case, the information will be read on software **Contact@ir Soft®**.







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# Contact@ir® System with Dongl@ir®



Study – Prevention – Protection – Lightning

## When carry out a diagnosis with Dongl@ir® ?

With **Dongl@ir®**, you can carry out a diagnosis when you are located near your installation to check its reliability.

The circumstances requiring the checking of your lightning protection installation are listed in the NFC 17-102 standard text in the article 8.2 :

- Periodically in order to be able to anticipate and forestall the natural wear of your installation,
- After a thunderstorm or any other climatic phenomenon potentially harmful for your lightning protection installation,
- Each time the protected structure is modified or repaired.



## A clearly defined use

## Which information shall I obtain with Dongl@ir® ?

Whether you use **Contact@ir Soft®** or **Contact@ir App®**, you will obtain the following information :

### Identification :

- The **Compt@ir®** or **Paraton@ir®** serial number,
- The type and colour of the **Paraton@ir®**,
- The emitter serial number,
- Potential notes previously entered.

### Diagnostic:

- Quality of communication,
- Product integrity,
- Product working order

### History :

- Chronology of previous diagnosis by product,
- Diagnosis results,
- Previous users' comments.



## Relevant and clear information

All information collected during the diagnostics are automatically dated, recorded and chronologically classified.

This information is necessary to draw up documents relative to the carrying out, the checking and the maintenance of your installation.

Those documents are imposed by the NFC 17-102 standard (art. 8.1 to 8.7). **To learn more, connect to [www.lpsfr.com](http://www.lpsfr.com).**

## What do I do if the diagnosis reveals a critical information ?

- ✓ **Standards respected**
- ✓ **Warranties preserved**
- ✓ **Maintenance simplified**
- ✓ **Security ensured**

In this case, it is imperative that a complete check of your installation should be carried out.

The complete checking procedure can be found in the NFC 17-102 standard (art. 8.5 and 8.6) and is resumed in the FT-LPSFR-11 specification sheet. This check is a prerequisite to the preservation of your warranties.

By calling upon a LPS France licensed agent, you are sure that the checking procedure is respected and that the appropriate measures are taken.





# Contact@ir<sup>®</sup> System with Rout@ir<sup>®</sup>



www.lpsfr.com

## Study – Prevention – Protection – Lightning

### Maintenance and servicing requirements to be met



An outside protection against lightning with a lightning rod must be checked every year and after each lightning strike to ensure its good working order.  
Source NFC 17-102 – September 2011, (art. 8.2).

Maintenance and servicing of your lightning protection installation are also necessary to preserve your manufacturer's and installer's warranties.

To ensure a total security, you must be certain of its efficiency at any time.

**Contact@ir<sup>®</sup>** system is an exclusive solution proposed by **LPS France** to meet normative requirements, preserve your warranties and ensure your security throughout the lifetime of your lightning protection installation.

## Why use Rout@ir<sup>®</sup> ?

**Contact@ir<sup>®</sup>** system, if used with **Rout@ir<sup>®</sup>** receiver, enables you to check the good working order of your product remotely. If one of your product is struck by lightning, you immediately receive a warning.

You are given the lightning strike intensity level on a scale from 1 to 3.

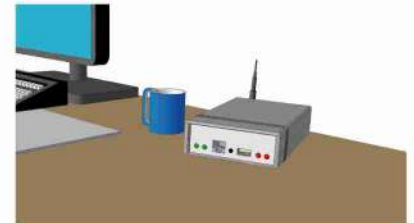
It is thus possible to know which type of checking has to be done.

Your products equipped with a **Contact@ir<sup>®</sup>** emitter permanently communicates by radio waves with your nearby-located **Rout@ir<sup>®</sup>**.

Datas collected by Rout@ir are constantly transmitted to the server on which they are recorded and dated without any intervention on your part.

The multiplicity of usable networks for the data transmission makes its use possible even in the most isolated places. Datas can be remotely accessed to, from any appliance connected to the internet. At any time and from anywhere, you can peruse the status of you installations.

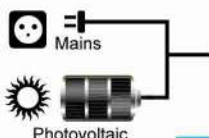
### Une surveillance continue, à distance



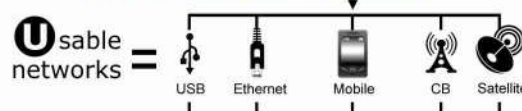
## What are the necessary equipments ?



It can be supplied on the mains or thanks to a photovoltaic cell.



It transmits the datas to the server by the most suitable network.



www.contact-platform.com







www.lpsfr.com

# Contact@ir® System with Rout@ir®



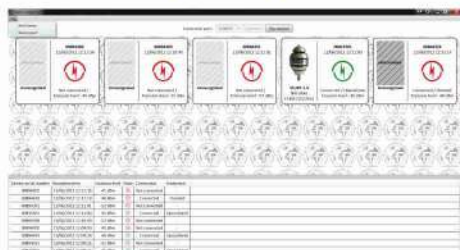
Study – Prevention – Protection – Lightning

## Which information shall I obtain with Rout@ir® ?

On the [www.contact-platform.com](http://www.contact-platform.com) server, you will obtain the following information :

### Identification :

- The **Compt@ir®** or **Paraton@ir®** serial number,
- The type and colour of the **Paraton@ir®**,
- The emitter serial number,
- Potential notes previously entered.



### Relevant and clear information

### Diagnosis:

- Quality of communication,
- Product integrity,
- Product working order

### History :

- Lightning strike history
- Chronology of previous diagnosis by product,
- Diagnosis results,
- Previous users' comments.

- + Lightning strike alert
- + Lightning strike intensity
- + Maintenance level

All information continuously collected by **Rout@ir®** are automatically transmitted to the server, dated, recorded and chronologically classified. This information is necessary to draw up documents relative to the carrying out, the checking and the maintenance of your installation. Those documents are imposed by the NFC 17-102 standard (art. 8.1 to 8.7)  
To learn more, connect to [www.lpsfr.com](http://www.lpsfr.com).

## What do I do if I receive a lightning strike warning ?

**Contact@ir®** system used with **Rout@ir®** transmits an in-real-time warning when the protection installation is struck by lightning.

The NFC 17-102 standard imposes a check of your lightning protection installation each time the protected structure is struck by lightning (art. 8.2).

This measure aims at ensuring the efficiency of your protection installation without any interruption. For this reason, simply receiving a lightning strike warning must lead you to check the integrity and the good working order of your product on the [www.contact-platform.com](http://www.contact-platform.com) server.

**Rout@ir®** also enables you to know the intensity of the lightning strike picked up by your product on a scale from 1 to 3.

This feature, as the whole of **Contact@ir** system, is a **LPS France** exclusive.

The intensity of the lightning strike picked up by your product and the result of its diagnosis assist in determining whether a visual, normal or a complete check of the installation is necessary (cf. NFC 17-102 standard, art. 8.2 to 8.6), as well as the urgency level of the action to be taken.

Thanks to **Rout@ir®**, you save time and avoid useless expenditure while ensuring the efficiency of your installation with more targeted actions.



**A performant  
decision-support  
tool.**

## What other requirements is Rout@ir® meeting ?

According to the NFC 17-102 standard (art. 8.2) your lightning protection installation must also be checked :

- Periodically in order to be able to anticipate and forestall the natural wear of your installation,
- Each time the protected structure is modified or repaired.

With **Rout@ir®**, the historization of lightning strike warnings favours the prevention of use-related damage on the installation and you can rapidly carry out a diagnosis wherever you are.

If the diagnosis reveals a critical information, your installation must be the object of a visual, normal, or a complete check as appropriate (cf. NFC 17-102 standard, art. 8.5 and 8.6). This check is a prerequisite to preserving your warranties.

By calling upon a LPS France licensed agent, you are sure that the checking procedure is respected and that the appropriate measures are taken.

- ✓ Standards respected
- ✓ Warranties preserved
- ✓ Maintenance simplified
- ✓ Security ensured



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