



THE GLOBAL APPROACH TO LIGHTNING

ACTIVE 4D[®]

YOUR LIGHTNING CENTRAL PROTECTION, CONNECTED TO THE WORLD

PROTECTION



DETECTION



E-COUNTER



ANALYSIS / CHARACTERIZATION



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NOT ONLY A LIGHTNING CONDUCTOR, BUT A CENTRAL PROTECTION



PROTECTION

Early Streamer Emission Lightning conductor (ESE) with 2 devices: Impulse and Power devices.



DETECTION

Detection device and storm activity measurement through 2 field sensors: Electrostatic and Electromagnetic.



E-COUNTER

A built-in lightning counter, with timestamp and sampling of the captured lightning currents.



ANALYSIS / CHARACTERIZATION

Live monitoring, setting and control remotely between Active 4D® and the user through network connection.



PROTECTION : EARLY STREAMER EMISSION (ESE)

The principle of the ESE Active 4D® is not only to initiate the upward leader, but to provide the energy needed to ensure its propagation until the junction with the downward leader.

The Active 4D® system is equivalent to the ESE Active 2D® lightning conductor, featuring two devices: "Impulse" and "Power" devices. The system is, thus, permanently pre-loaded of an important energy which enables him to constantly support the propagation of the tracer.

The first Franklin France innovation comes from the electrostatic field sensor, integrated inside the lightning conductor, measuring the electrical value permanently. This triggers the impulse device of the ESE lightning conductor. As the downward leader enters the lightning protection zone, the measured current increases highly. As soon as this current exceeds a threshold characteristic (1A), the power capacitors discharge and release the necessary energy for the propagation of the upward leader. In the latter device, the head of the lightning conductor acts as a capture organ. It is consequently, electrically insulated from the earth.

The Active 4D® operating system can be tested at anytime, either by a remote tester or by computer linked to the Activ'Control® housing (via local network), through the LMS software (Lightning Monitoring System).

The Active 4D® offers two models following to the excitation device speed: 30 and 60 µs. The system was tested in compliance with the September 2011 NFC 17-102 standard, in an independent laboratory accredited COFRAC.

Test reports available upon request.



PREVENTION : INTEGRATED STORM DETECTION

The Active 4D® allows in predicting a storm. The detection works through 2 integrated sensors that measure with precision the electrostatic and electromagnetic field values. The integration of these two devices in one system was patented by Franklin France.

Once the recorded values indicate an imminent risk of lightning, the Active 4D® with its dry contact Activ'Control® housing, takes the initiative to send audio alerts (siren, ...), and / or visual alerts (flashing light ...) and / or warning alerts (email, ...).

The LMS (Lightning Monitoring System) software, permanently connected with the Activ'Control® (and thus the Active 4D®) allows visualizing the evolution of risk, and configuring the thresholds level of the detection.

The great innovation of the system (patented) was to include prevention with lightning protection.



BUILT-IN LIGHTNING COUNTER FINALLY A REAL SOLUTION FOR BUILDINGS WITH METAL SIDING!

The Active 4D® allows to record lightning strikes autonomously. The innovation comes from a built-in lightning counter in the Active 4D® system. This lightning strike counter allows to time-stamp and stores the various impact information captured by the Active 4D® (number of impacts, day / time of each impact, value, form and energy of the Lightning electric current).

This data is then transferred by radio link to the Activ'Control®. The operator, through the LMS software, has access to these various data and visualizes the curves of the lightning current. At each new impact, an email is sent instantly to the designated person (programmed in the system).

This device complies with the decree of 19th of July 2011 and with the IEC 62561-6.





LIGHTNING MONITORING SYSTEM

A 100% CONNECTED SOLUTION

The innovation of the Active 4D® solution offers a complete system of lightning protection, permanently connected with the users.

The Lightning protection part uses the latest technology to advance the excitation upward leader.

The Detection part uses the patented dual sensors (electrostatic and electromagnetic) to inform the storm approaching. As for the counter, it informs in real time all direct impacts on the Active 4D® and gives all features of the current.

The LMS software allows to gather, in real time, all the information related to lightning phenomena on site. With the connecting system if the user wishes to, it is possible to have access to the gathered data from anywhere in the world.

The protective solution is installed at the highest point of the structure to be protected. The Activ'Control® is installed at a distance of 100 meters from the lightning conductor. The communication between these two systems is done permanently by radio. The Activ'Control® is connected to the network of the protected site, via an Ethernet cable (RJ45). It allows the user to view permanently, the approaching storm activity caught by the Active 4D®. With this unique connecting system, it is possible to collect all the data remotely and also to test the lightning conductor functionality without being on site.

Several protections may be connected to a single housing, allowing complete information on an extended site.

This 100% connecting solution revolutionizes the protection but also the prevention against lightning thanks to 4 devices integrated in one product.

Active 4D® solution offers a real innovation in the lightning protection industry, ensuring the protection of the site and safety of its staff. All data collected by the LMS also helps to have an excellent tracking at installation and ensure an optimal maintenance of the system.

