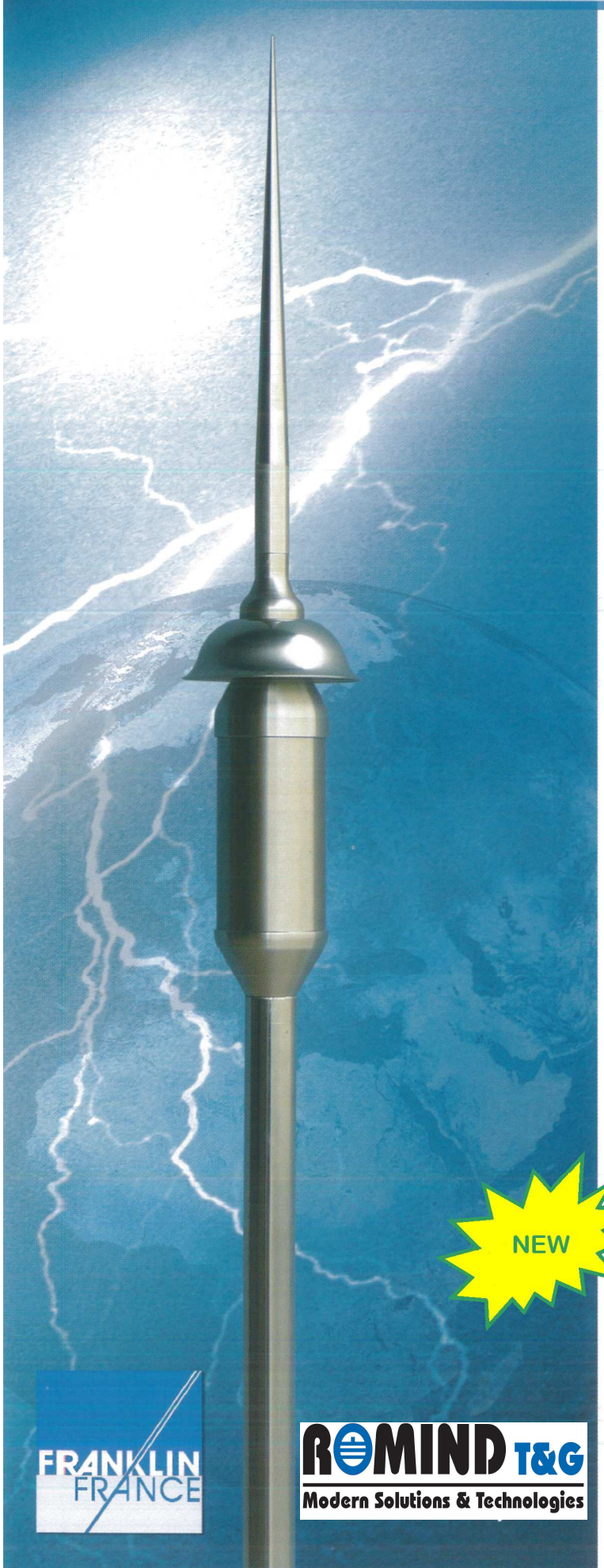
Active 1D® Simple, reliable and self-contained



NEW

Early Streamer Emission

Principle & operating

The *ACTIVE 1D®* excitation advance is obtained by a device named, " impulse device ". Its principle consists in storing electrostatic energy present in the Atmosphere at a stormy cloud approach, to release the ascending discharge excitation in good time.

This device operates at a stormy activity approach by an integrated sensor which measures the surrounding electrical field value.

It provokes then a polarity inversion of the lightning conductor head, creating a sudden amplification of the electrical field on its tip.

Active 1D® features

- Consider the energetic parameter to choose the streamer which has the capacity to become an ascending leader,
- Autonomous and clean energy source: Atmospheric electrical field,
- Cloud polarity consideration,
- Head curve radius optimized to reduce the Corona effect and guarantee the excitation device,
- Functioning warranty in any atmospheric condition,
- High resistance to the corrosion thanks to its 100% manufacture in 304L stainless steel.
- In compliance with NFC 17 102 September 2011

Active 1D® radius of protection

The Early Streamer Emission (ESE) *ACTIVE 1D®* lightning conductor has been tested in laboratories in compliance with NF C 17-102 standard protocol.
These tests have determined an excitation advance from 12µs to 60µs with regard to a simple rod.

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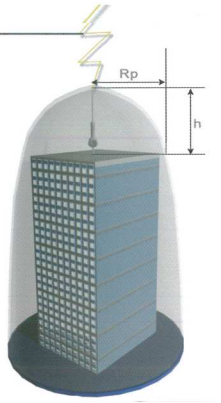
Lightning conductor Active 1D® Range

Better protection area



The *ACTIVE 1D®* radii of protection here below mentioned, are defined for the four Np levels of protection (from I to IV) depending on the height h between lightning conductor tip and the structure highest point to protect.

ΔT : Excitation Advance, for the *ACTIVE 1D®*, ΔT = 12, 25, 45 & 60µs

- Np: Level of protection with different severity levels (I to IV) determined by lightning risk assessment. IEC 62305-2 standard,

- h(m): Height between the lightning conductor tip and the highest point to protect.

ACTIVE 1D	AFB10121D	AFB10251D	AFB10451D	AFB10601D
h(m) \ Np	I II III IV	I II III IV	I II III IV	I II III IV
2	11 13 16 19	17 20 23 26	25 28 32 36	31 34 39 43
4	23 27 32 37	34 40 46 52	51 57 65 72	63 69 78 85
5	28 34 41 46	42 49 57 65	63 71 81 89	79 86 97 107
6	29 34 42 48	43 49 58 66	63 71 81 90	79 87 97 107
8	30 36 43 50	43 50 59 67	64 72 82 91	79 87 98 108
10	30 37 45 52	44 51 61 69	64 72 83 92	79 88 99 109
20	32 41 51 60	45 54 65 75	65 74 86 97	80 89 102 113
30	32 42 55 65	45 55 68 80	65 75 89 101	80 90 104 116
60	32 42 57 72	45 55 70 85	65 75 90 105	80 90 105 120

Active 1D® range of products

Range	ΔT(µs)	Lightning counter
AFB10121D	12	Not included
AFB17121D	12	Included

Range	ΔT(µs)	Lightning counter
AFB10251D	25	Not included
AFB17251D	25	Included

Range	ΔT(µs)	Lightning counter
AFB10451D	45	Not included
AFB17451D	45	Included

Range	ΔT(µs)	Lightning counter
AFB10601D	60	Not included
AFB17601D	60	Included

Packaging

Complete lightning conductor conditioned in carton box.
- Weight: 3,0 Kg
- Dimensions: 430 x 110 x 110 mm

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