

Active

1D[®]

Simple, reliable and self-contained

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

NEW

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.



Sicame Group

Lightning conductor **Active 1D®** Range

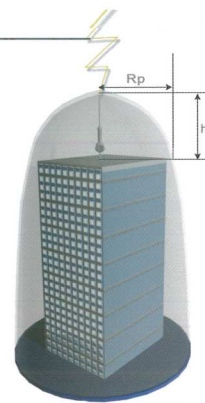
Better protection area

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®**, $\Delta T = 12, 25, 45 \text{ \& } 60 \mu s$

- 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	$\Delta T(\mu s)$	Lightning counter
AFB10121D	12	Not included
AFB17121D	12	Included

Range	$\Delta T(\mu s)$	Lightning counter
AFB10251D	25	Not included
AFB17251D	25	Included

Range	$\Delta T(\mu s)$	Lightning counter
AFB10451D	45	Not included
AFB17451D	45	Included

Range	$\Delta T(\mu s)$	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



Franklin France B.P. 106 - 13 rue Louis Armand 77834 Ozoir-La-Ferrière
Cedex (France)

Phone: +33 (0)1 60 34 54 44 Fax: +33 (0)1 64 40 35 43

Email: franklin@franklin-france.com

