



## Lightning protection Early Streamer Emission



### Active **1D**<sup>®</sup> Early Streamer Emission



The operating principle of the **Active 1D**<sup>®</sup> consists in initiating the upward leader thanks to a triggering advance.

A device, named « **impulse device** », stores the electrostatic energy present in the atmosphere at the approach of a stormy cloud and releases the excitation of the ascending discharge at the right time.

Close to the storm activity, an integrated sensor measuring the surrounding electric field value, releases the impulse device like most of usual Early Streamer Emission. Those lightning conductors almost immediately reverse the polarity of their head, creating a sudden amplification of the electrical field.

When the downward leader enters in the protection area of the lightning conductor, the measured current strongly increases. As soon as this current is higher than the characteristics threshold, the power capacitors discharge and release the necessary energy for the propagation of the leader.

In this last device, the lightning conductor's head acts as a capture device. Therefore, the head is electrically insulated from the ground.

#### CHARACTERISTICS

<b>Reference :</b>	<b>AFB10121D / AFB10251D / AFB10451D / AFB10601D</b>
<b>Assembly :</b>	Fitting of the lightning rod in the elevation rod AFC1004MR, installation and clamping with the FRANKLIN FRANCE fixing systems according to height and snow and wind resistance
<b>Use :</b>	Outside protection of the buildings
<b>Display :</b>	Wired test with tester AFV0050TT
<b>Material :</b>	Stainless steel
<b>Dimensions :</b>	850 x Ø 103,8 mm
<b>Weight :</b>	3 kg
<b>Standards :</b>	NFC 17-102 September 2011

Model	t ( s )	H ↑ (m)	Reference	Lightning counter
Active 1D <sup>®</sup> 12	12	0,850	AFB 10121 D	not included
Active 1D <sup>®</sup> 12	12	"	AFB 17121 D	included
Active 1D <sup>®</sup> 25	25	"	AFB 10251 D	not included
Active 1D <sup>®</sup> 25	25	"	AFB 17251 D	included
Active 1D <sup>®</sup> 45	45	"	AFB 10451 D	not included
Active 1D <sup>®</sup> 45	45	"	AFB 17451 D	included
Active 1D <sup>®</sup> 60	60	"	AFB 10601 D	not included
Active 1D <sup>®</sup> 60	60	"	AFB 17601 D	included

Rp (m) h (m)	Active 1D <sup>®</sup> T = 12 s				Active 1D <sup>®</sup> T = 25 s				Active 1D <sup>®</sup> T = 45 s				Active 1D <sup>®</sup> T = 60 s			
	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	39	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	73	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

France : A restriction of 40% on each radius of protection will be applied on sites submitted to lightning decree in force.

Complete lightning rod conditioned in reinforced cardbox.

- Weight: 3Kg
- Dimensions: 430 x 110 x 110 mm



Wired tester AFV0050TT



Last update 21/08/2017

Franklin Technologie<sup>®</sup> - A complete range of Lightning and Overvoltage protections  
As part of continuous development of its products, Franklin France keeps the right to modify without notice