ERITECH®

Features

- Designed and tested to NFC17-102 and UNE-21186
- Stainless steel design suitable for most environments
- Available in three models to suit specific site requirements
- Suitable for connection to a variety of downconductor systems including tape, cable, smooth-weave and ERICORE conductor
- Fully compatible with the ERITECH® System 3000 mast, ERICORE cable and accessories

SI INTERCEPTOR ESE Lightning Terminals

Designed to Meet the Requirements of NFC17-102 and UNE-21186

SPECIFICATIONS

Testing of the ERITECH SI INTERCEPTOR ESE

The ERITECH SI INTERCEPTOR ESE has been extensively tested at an independent high voltage laboratory.* Tests have been performed in accordance with the requirements of French NFC17-102 and Spanish norm UNE-21186.

The testing, as defined in the above two standards, was designed to simulate naturally occurring conditions and allow comparison of the performance between differing types of lightning protection systems.

The test simulates natural field conditions where a permanent field (the one due to the charge between cloud and ground, simulated in the laboratory by a DC generator) is superimposed to a field impulse (the one due to the downward leader approaching ground, simulated by a Marx Generator with a long front time.)

The corona at the tip of the rod is measured by the mean of a photo-multiplier that enables the determination of the triggering time of both the simple passive rod (SR) and the ERITECH SI INTERCEPTOR ESE.

The average value is then determined for both a simple passive rod and the ERITECH SI INTERCEPTOR ESE. The time difference is then defined as T(SR) minus T(SI) to achieve the ΔT advantage for the ERITECH SI INTERCEPTOR ESE.

Working Principles

During thunderstorm conditions when the lightning down-leader is approaching ground level, an upward leader may be created by any conductive surface. In the case of a passive lightning rod the upward leader propagates only after a long period of charge re-organization. In the case of the ERITECH SI INTERCEPTOR ESE the initiation time of an upward leader is greatly reduced.

The ERITECH SI INTERCEPTOR ESE generates controlled magnitude and frequency pulses at the tip of the terminal during high static fields characteristic to that prior to a lightning discharge. This enables the creation of an upward leader from the terminal that propagates towards the downward leader coming from the thundercloud.

* Test report available upon request.

ERICO®

100 YEARS YOUNG

1903 - 2003

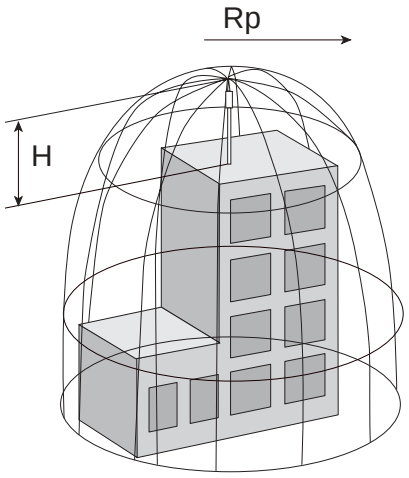
ERITECH®

SI INTERCEPTOR ESE
Lightning Terminal

Protection Areas

The standard protection radius Rp* of the ERITECH SI INTERCEPTOR ESE is linked, according to the NFC17-102 1995 standard, to ΔT as given below, the protecting levels I, II or III (as calculated in Annex B of NFC17-102) and to the height of the ERITECH SI INTERCEPTOR ESE above the structure to be protected (H, defined by NFC17-102 as a minimum 2m)

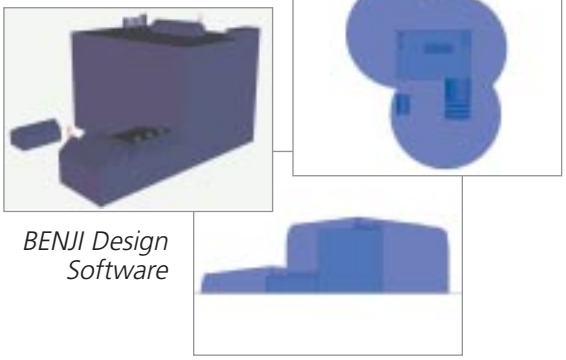
*Refer to NFC17-102 for related practical recommendations



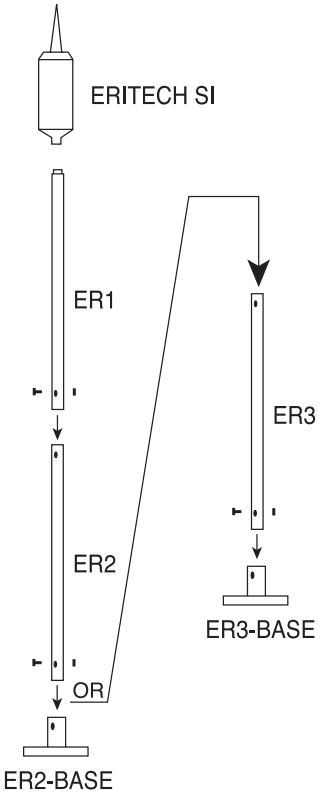
	Level I R=20m			Level II R=45m			Level III R=60m		
ΔT (μsec)	25	40	60	25	40	60	25	40	60
Rp(m) Protection Radius									
H(m)									
2	17	23	32	23	30	40	26	34	44
3	25	35	48	34	45	59	39	50	65
4	34	46	64	46	60	78	52	67	87
5	42	58	79	57	75	97	65	97	107
10	44	59	79	61	77	99	69	99	109

Design Support

ERICO's unique computer aided design programs provide the highest levels of lightning protection to a variety of design techniques and standards, including both NFC17-102 and UNE-21186. Based upon individual site parameters such as structure dimensions, terminal type and protection level, each BENJI design is customized for the project and provides elevation, 3D and plan views enabling specific designs to be optimized for your facility. Please contact your nearest ERICO office for applications engineering support.



BENJI Design Software



ERITECH SI INTERCEPTOR and Accessories

Ref Code	Part Number	Description	Packing Unit	Weight (kg)
SI25	701535	ERITECH SI INTERCEPTOR, ESE - ΔT = 25 (μsec)	1	3
SI40	701536	ERITECH SI INTERCEPTOR, ESE - ΔT = 40 (μsec)	1	3
SI60	701537	ERITECH SI INTERCEPTOR, ESE - ΔT = 60 (μsec)	1	3
ER1-1000-SS	702255	Upper Stainless Steel Mast – 1m long Section 1	1	3.5
ER1-2000-SS	702260	Upper Stainless Steel Mast – 2m long Section 1	1	6.2
ER2-2000-SS	702265	Stainless Steel Mast – 2m long Section 2	1	4.9
ER2-3000-SS	702270	Stainless Steel Mast – 3m long Section 2	1	7.3
ER2-BASE-SS	702290	Stainless Steel Mast Base – Section 2	1	5.2
ER3-2000-SS	702275	Stainless Steel Mast – 2m long Section 3	1	5.3
ER3-3000-SS	702280	Stainless Steel Mast – 3m long Section 3	1	7.9
ER3-BASE-SS	702295	Stainless Steel Mast Base – Section 3	1	5.6
GUYKIT4	701300	Kevlar Guy Kit up to 4m masts	1	0.4
GUYKIT7	701310	Kevlar Guy Kit up to 7m masts	1	0.7
ALOF-1-GS	702175	Galv. steel wall brackets, set 1	1	1.5
LSEB-4554	702180	Support Brackets for Masts 2, 3 (set 2)	2	10.50
ACF-2-GS	103100	Parallel pipe clamp (set 2)	1	2.1
TMC-SS	702165	Tape to Mast Clamp Mast 2	1	0.2
CABTIE-SS	701420	Cable and Tape Ties for Mast 2, 3	1	–
WPC3050	702230	Waterproof Cone to Suit Masts 2, 3	1	0.07
PCF-40-GS	102800	Protective sleeve, 30 x 2mm tape, saddles incl.	1	1
CCJ-70-CA	102700	Earth Test Clamp for 8mm round or 30mm tape	1	0.4

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