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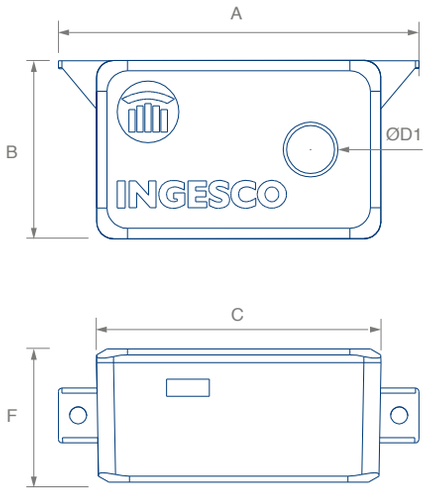
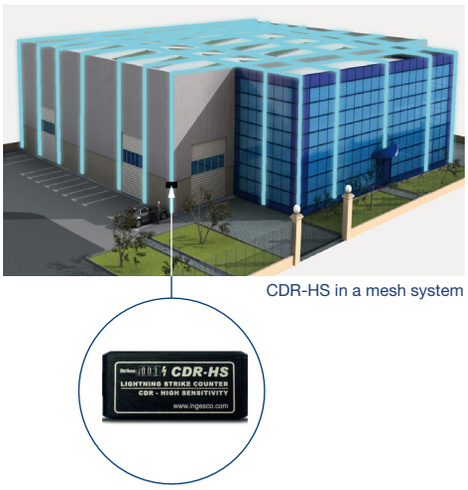
INGESCO®
LIGHTNING SOLUTIONS

CDR-HS **LIGHTNING COUNTER**

High sensitivity lightning strike counter.





CDR-HS in a mesh system

applications

The CDR-HS high sensitivity lightning strike counter is designed to detect electro-atmospheric discharge impacts through the down-conductors of the external protection system. The high sensitivity in the current detection makes the CDR-HS the ideal solution for protection systems as conductive mesh and protective down-conductors in contact with metal walls. These kind of protection systems are characterized by having various current return paths which make more difficult the detection of lightning of low and medium intensity by an Standard lightning counter (based on the Standard IEC 62.561/6:2011).
The use of the CDR-HS is recommended in:

- Faraday cages with various current return paths.
- Down-conductors in contact with metal walls, in case that metal walls are grounding.
- When the down-conductor has various anchor sets in a metal wall and the lightning counter is situated in the middle of them.

operation

When a lightning strike go down through the grounding system, it appears an energy that is detected by the lightning strike counter CDR-HS.
The counter registers this energy and increase one unit the digits shown by the device. CDR-HS can detect lightning strike currents 10 times lowers than the standard counters, maintaining the ability to detect direct lightning strikes according with IEC 62.561/6:2011. With the CDR-HS is possible to detect low lightning strike currents as a consequence of structures with several paths to ground.
The CDR-HS lightning strike counter is fully autonomous and requiresno maintenance. It uses the lightning energy for its operation.

standards and tests

The lightning strike counters installation at the down-conductors is showed at the following norms: UNE 21.186, NFC 17.102 and IEC 62.305 to allow the control and the immediate verification of the installation of protection after each lightning impact: “A lightning protection system must be verified after each lightning impact registered at the structure”.

Tests carried out by LABELEC, electro technical test laboratory, accredited by ENAC (Accreditation number: 307/LE681).

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technical specifications

Description	Ref.	A (mm)	B (mm)	C (mm)	F (mm)	D1 (mm)	Weight (g)
CDR-HS	432027	105	40	83	52	14	300

Parameters

Working temperature:	from -20º to 65ºC
Range of Intensity:	from 100A (8/20µs) to 100kA (10/350µs)
Rango del contador:	from 0 to 999 impulses
Protection degree:	IP65
kind of conductors:	Round Ø8-12mm, cable 50 to 95mm2 of section (Available flat conductor adapter kit Ref.115117)
Minimum torque:	10 Nm
Resettable:	NO

CDR-HS characteristics

· High recording sensitivity.
· Great register capacity (999 impulses).
· Easy visual control.
· Detection of impulses from:
  Intensity min: 1kA (8/20μs according to 62.561-6:2011).
  Intensity max: 100kA (10/350μs according to 62.561-6:2011).
· Compact and robust design.
· Durability.

guarantees and benefits

· Designed according to the IEC 62.561-6 Standard, with range extension of low currents up to 100A.
· Easy adaptation to the down conductor of any lightning protection system.
· Allows controlling the lightning rod condition.
· Works in any atmospheric condition (from -20ºC to 65ºC).
· It does not need power supply.
· Easy installation and operation.

Remember

According the standards norms NFC 17.102, UNE 21.186 and IEC 62.305, each lightning protection system must be periodically checked, especially after any lightning impact on it.

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