





# >>> LIGHTNING STRIKE COUNTER INGESCO® CDR UNIVERSAL

Lightning strike counters with resettable system and installation in parallel.

# applications

Measurements in mm

The lightning strike counter **CDR-UNIVERSAL**, is a compact and strong device designed to detect lightning strikes upon any external lightning protection systems (lightning rods, Faraday cages, etc.). The new isolated sensor of the **CDR-UNIVERSAL**, ensures the lightning strikes detection independently of the protection down conductor status, or the quality of the counter fastening to the down conductor.

### operation

CDR-UNIVERSAL detects the Electrical energy that is derived to ground through a conductor when a lightning impact occurs. The device registers each impact incrementing the counter in one unit each time. CDR-UNIVERSAL is installed in parallel without need to manipulate the down-conductor (cable, rod or plate), and does not require any type of external power, because it uses the electric energy of the lightning to operate. The magnetic sensor located inside the CDR-UNIVERSAL allows detecting the lightning current at the down-conductor without electric contact. This characteristic results in a bigger durability of the equipment in front of the strike and also a good operation whatever it is the protection down-conductor damage.

#### norms and essays

The lightning strike counters installation at the down-conductors is showed at the following norms: UNE 21.186, NFC 17.102 y UNE-EN 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". The lightning strike counter CDR-UNIVERSAL is designed according to the operation requirements of standard IEC 62.561/6:2012, Components of protection against lightning (CPCR) Part 6: Requirements for the lightning strikes counter. Fulfill the requirements of the standard IEC 62.561/1:2012, Components of protection against lightning (CPCR) Part 1: Requirements for the fitting components. Tests carried out by LABELEC, electro technical test laboratory, accredited by ENAC (Accreditation number: 307/LE681).

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# technical specifications

Measurements	101 x 109 x 42 mm
Weight	490 gr.
Range of Intensity	1 kA (8/20 μs) - 100 kA (10/350 μs) (según EN 50.164-6:2009)
Range of register	from 0 to 999 impulses
Working temperature	from -20°C to 65°C
Protection degree	IP 65
Bypass connector (shunt) (cable/rod/plate)	50 - 95 mm <sup>2</sup> / 8 - 12 mm / 30 x 2 mm

# characteristics of CDR-UNIVERSAL

- · Great register capacity (999 impulses)
- · Easy visual control
- · Detection of impulses from:
  - · Intensity min: 1 kA (8/20 µs according to EN 50.164-6:2009)
  - $\cdot$  Intensity max: 100 kA (10/350  $\mu \mathrm{s}$  according to EN 50.164-6:2009)
- · Designed exclusively for installation in parallel with the down-conductor, never in series (sectioned down conductor)
- · Compact and Strong design.
- · Resettable model.
- · Detecting no ohmic contact: does not affect the status of the down conductor
- · Durability
- · Secure fastening by steel parts

### guarantees and benefits

- · Fulfills standard norms UNE 21.186, NFC 17.102 and UNE-EN 62.305
- · Easy adaptation to the down conductor of any lightning protection system
- · Allows controlling the lightning rod condition
- · Works in any atmospheric condition (from -20°C to 65°C)
- · Offers updated and reliable information
- · It does not need power supply
- · Easy installation and operation

# Remember:

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



# **DENA DESARROLLOS SL**

Lightning rod

installation scheme

Duero 5 | 08223 Terrassa | Barcelona | Spain T 937 360 305 | T (+34) 937 360 314 F 937 360 312 export@ingesco.com



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