



Ref. 430022

Ref. 430022/WM

▶▶ DL EOLOS K15FO

High bandwidth lightning strike counter with optical fibre output for wind turbines and elevated structures.

▶ applications

DL EOLOS K15FO lightning strike counters register and account local strikes impacting on wind turbine blades. The compact design and robust construction, combined with a high current impulse bandwidth, makes this product a perfect fit for monitoring the most common types of lightning strike impacts registered in wind turbine blades and elevated structures.

The output optical fibre event notification signals generated by the **DL EOLOS K15FO** counter can be received and decoded by the **DL EOLOS FO-RCVR-DIN** (ref. 432036) and **DL EOLOS FO-RCVR-DIN-1CH** (ref. 432038) optical fibre receivers.

▶ operation

The **DL EOLOS K15FO** detects the current impulse produced by the lightning strike in the lightning protection system down conductor. Registered lightning strikes are reported as events in the optical fibre output and, at the same time, accounted in one mechanical counter.

The high bandwidth magnetic sensor used in the **DL EOLOS K15FO** counter ensures a contact-free installation and a maintenance free operation.

These counters harvest all necessary energy from the lightning strike current impulse without any need for batteries, external power sources or moving parts.

▶ standards and tests

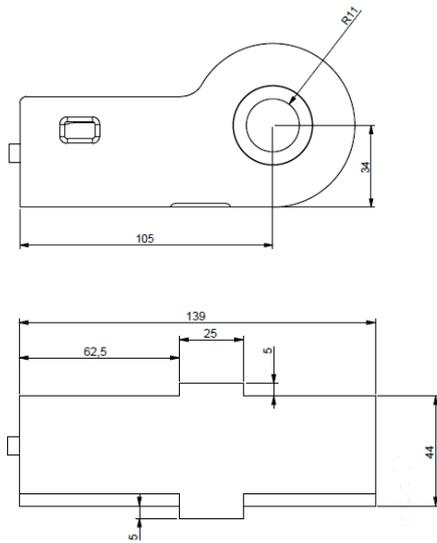
IEC 62.305, UNE 21.186 and NFC 17-102 standards indicate the need to install lightning strike counters as part of lightning protection systems. Lightning protection systems must be inspected and checked after the occurrence of any impact on the structure. **DL EOLOS K15FO** counters assist the maintenance planning staff in reducing the wind turbine down time as they allow accurate knowledge of impacted blades.

DL EOLOS K15FO counters have been designed to comply with IEC 62.561-6 standard requirements, with the exception of the minimum current threshold. The counter's current threshold has been optimized for detecting lightning impacts as described by IEC 61.400-24 standard.

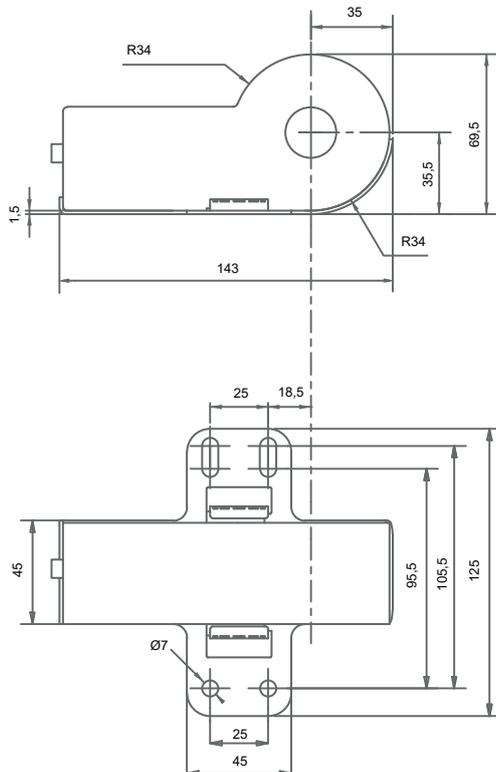
DL EOLOS K15FO/820 counters have been tested for current impulse immunity at LABELEEC, Laboratorio de Ensayos Electrotécnicos (ENAC accreditation number 307/LE681).

▶ guaranties and benefits

- Meets UNE 21.186, NFC 17.102 and IEC 62.305 standard requirements
- Indoor/outdoor installation
- Great durability
- Maintenance-free operation



Dimension: DL EOLOS K15FO, ref. 430022.



Dimension: DL EOLOS K15FO + Wall mounting accessory, ref. 430022/WM.

► technical specifications

Current wave front	from 8 μ s to 2000 μ s
Current range	\pm 180A to \pm 200kA
Current impulse immunity (10/350μs)	\pm 200kA
Counting range	Up to 999 events (rolls down to 000)
Operating temperature	-20°C to 60°C
Protection grade	IP 65
Weight, ref. 430022	770g
Weight, ref. 430022/WM	890g
Downconductor diameter	22 mm
Output	SMA connector. Compatible with optical fibre cable types POF, OM1 and OM3.
Output data format	Proprietary

► main characteristics

- Accounting of up to 999 events.
- Permanent visibility of accounted events count.
- High detection sensitivity for a wide impulse current bandwidth, including typical wind turbine impacts as described by standard IEC 61.400-24.
- Direct attachment to wind turbine blades with adhesive.
- No need for external power or batteries.
- Contactless current impulse measurement sensor without ohmic contact with the down conductor.

Recommendations

It is recommended to install one **DL EOLOS K15FO** counter per wind turbine blade in conjunction with one optical fibre receiver model **DL EOLOS FO-RCVR-DIN**.