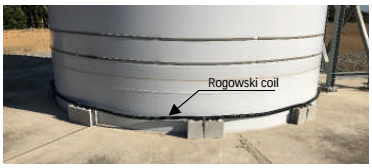
Spec.No. : B2-326-22-018

OTOWA

OTOWA Lightning detector of a windmill

Lightning detector of a windmill Type1

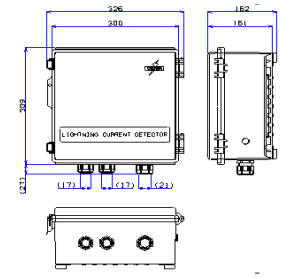
Accurate detection of lightning strikes on wind turbines to support safe operation of wind power generation facilities.



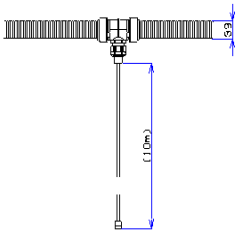
LDW-RC series

Dimension drawing

Main unit



Rogowski coil



Type	LDW−RC□−1	LDW−RC□−2
Power source	AC90～240V (50/60Hz)、DC12V ※When supplying both AC90～240V and DC12V, it can be operated by AC90～240V	
Power consumption	Less than 10W	
Current detection frequency bandwidth	0.1Hz to 100kHz within±3dB	
Minimum detectable current value	±1kA	±2kA
Maximum measurable current value	±100kA Accuracy : Within 100kA ±10%	±200kA Accuracy : Within 200kA±10%
Maximum measurable electric charge value	1200C	
Observation period	Approx. 0.6s	
Time	RTC	
Alarm : Setting range	Peak current :1 to 10kA(per 1kA)	Peak current :2 to 10kA(per 1kA)
Alarm : Output	Changeover contact without voltage can be output for one second when detecting lightning strike intensity more than alarm.	
Record : Media	SD memory card (2GB)	
Record : The number of records	Max 999	
Record : Record contents	Record number / Detecting time / Polarity / Peak current / Electric charge	
Display	Record number / Detecting time / Polarity / Peak current / Electric charge / Specific energy / Alarm output	
Environmental condition	Main unit : Indoor Rogowski coil : Outdoor	
Operating temperature	Rogowski coil : −30°C to+60°C Main unit : −20°C to +60°C	
Mass	Main unit : about 4 kg Rogowski coil : less than 10 kg (In case of wind tower at 4.3m)	

Manufacturer

OTOWA ELECTRIC CO.,LTD.

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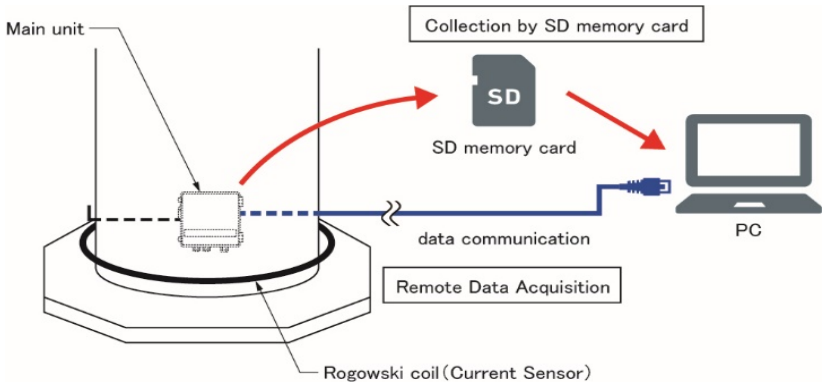
Agency

Features

Realizing the efficient maintenance by detecting lightning strikes on wind turbines.

A Rogowski coil is used for the current sensor to accurately detect lightning strikes on the wind turbine tower and output of an alarm (contact). In addition, the time of lightning strike, current polarity, peak current value, charge amount value, specific energy and current waveform data are recorded on the SD memory card.

*Please inquire separately about remote data collection.



Complied with JIS C 1400-24

This product is complied with Lightning protection standards (JIS C 1400-24) Lightning detector of a mindmill class 1.

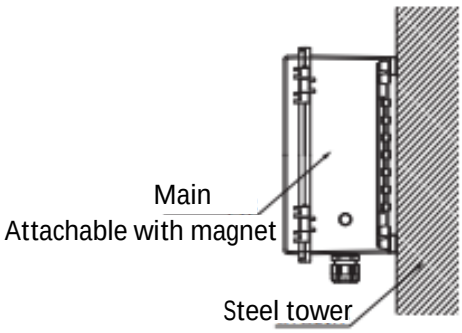
Automatic stop at the time of lightning strike is also possible.

By linking the alarm (contact) with the control device of the wind turbine, it is possible to stop the wind turbine when lightning strikes.

The main body is small and easy to install.

It can be magnetically attached to the inside of a steel tower.

Example of a blade damaged by lightning.



It can be customized to meet customer requirements.

Necessity of lightning wind detector of a windmill

A ministerial ordinance (Ministry of International Trade and Industry Ordinance No. 53 in 1997) was enacted to establish technical standards for wind power generation facilities, and the Ministry of Economy, Trade and Industry enforced the interpretation of technical standards for wind power generation facilities (revised 20170323 Commercial Bureau No. 3).

This product can also be applied as a "measure to protect wind turbines from lightning strikes".