LAMBRECHT
METEOROLOGICAL INSTRUMENTS GERMANY

Wind Run Indicator (1440)

General Remarks

The Wind Run Indicator, cup type, serves for determining the wind run and the average wind velocity during any period of observation.

The cup rotor rotates under the influence of the wind pressure and thus sets a roller counter mechanism going by means of a toothed-wheel gearing. The counter mechanism is moved on by one unit when the number of rotations of the cup rotor corresponds to a wind run of 100 m. Thus the wind run can be read at intervals of 100 m at the built-in counter mechanism arranged behind the reading window of the casing.

The figures of the counter mechanism are so large that readings of the instrument can be taken with the naked eye over a distance of approx. 4 m and by means of a telescope over a distance of approx. 10 m.

Mounting

When setting up the Wind Run Indicator it is necessary to choose a site which is free from obstacles so that the instrument is in no way sheltered by trees, houses or the like.

By tightening the two hexagon cap screws (width over flat of hexagonal nut 13 mm), the instrument is fastened onto a tube with 30 mm external diameter. Due to the exposed position of the measuring instrument we recommend to install a lightning conductor, which overtops the Wind Run Indicator, as security against atmospheric discharges.

Measurement

The difference between the readings of the counter mechanism taken at the beginning and at the end of the observation period is multiplied with 100 so to obtain the wind run in meters. When dividing the wind run by that time which elapsed between the two readings one obtains the average wind velocity within this time interval.

Maintenance

In case of continuous operation, the ball bearings of the cup rotor's axle should be reoiled approximately every two years. For this purpose it is necessary to unscrew the two white plastic screws (which are arranged at the superior cover of the cup rotor and at the lower part of the shaft) after having carefully cleaned their surroundings. Approx. 0,2 cm^3 of cold-resisting watch oil (e. g. Synt-A-Lube) should be pressed into the two oil holes by means of a pipette with metal or plastic canula.

Pipettes with glass points are not suitable for the oiling, as in the case of an eventual break the ball bearings might be destroyed by penetrating glass splinters. After having closed the oil holes, the cup rotor of the vertically standing instrument should be set running during some hours thus ensuring that the oil will spread on all bearings.

Technical data

Standard Line	**(1440) Cup Anemometer**
Id-No.	**00.14400.000 000**
Measuring element:	3-armed cup rotor • tilted mechanical counter • height of digits 7 mm
Measuring range:	99'999.9 km wind run - the way of wind in certain time period
Accuracy:	± 2% FS
Resolution:	100 m
Range of application:	Temperatures -35...+70°C no icing • wind speed 0...60 m/s
Starting value:	0.5 m/s
Housing:	Aluminium · RAL 7038 (agate-grey) ·
Protecting class:	IP 53
Dimensions:	Cup rotor Ø 320 mm · H 250 mm · for mounting pipe Ø 30 mm ·
Weight:	Approx. 1.2 kg

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