Wind Speed Sensor
1467 G4 (H)

Function

The sensor 1467 registers the wind speed with a three-armed cup rotor (type R100). The housing is made of weatherproof light metal, the cup rotor of anodized aluminium. Additionally the housing is lacquered gray (RAL 7038).

The three-armed cup rotor will rotate from the wind. A coupled DC generator (G4) converts the number of revolutions into a proportional current.

The electrical is connected to the sensor of a splash-proof plug connector in the shaft of the sensor. The sensor is mounted on a fitting tube with an outer diameter of 45 mm.

The sensor is deliverable with or without an electrical shaft heating. The heating is regulated by a built-in bimetallic switch.

Putting into operation

Choice of the installation place

For representative wind measuring the sensor should not installed under the lee of large obstacles. The distance between obstacle and sensor should be at least 10 times the height of the obstacle. Furthermore the sensor should at least 5 meter higher than the height of the obstacle.

Assembly

After inserting the plug connector into the socket at the bottom of the sensor shaft, the sensor is mounted on a fitting tube with an outer diameter of 45 mm and an inner diameter at least 35 mm.

If a traverse is supplied for the sensor then the fitting tube is a part of the traverse.

Electrical wiring

The cable is connected to the sensor by means of a splash-proof plug connection in the shaft of the sensor. Before mounting the sensor on the fitting tube, the cable with the plug connector is pass through the tube.

Please have a look at the wiring diagram for the different sensor versions.

Wiring Diagram

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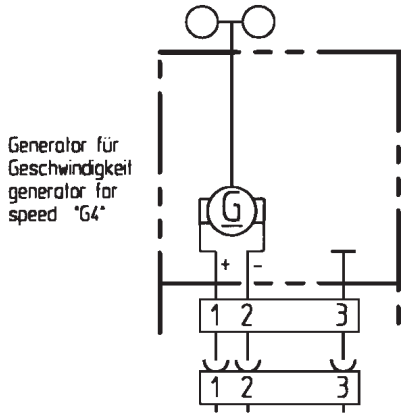

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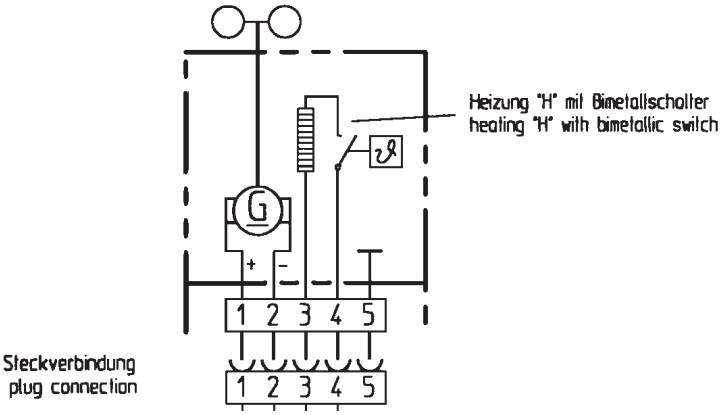


Steckverbindung
plug connection

Cable specification and connection

Without heating (3 pole connector):

Type of cable: LiYCY 2*0,75 mm²
or: 2*AWG 20 CUL sw

With heating (5 pole connector):

Type of cable: LiYCY 4*0,75 mm²
or: 4*AWG 20 CUL sw

After completely wiring the sensor is ready for operation.

Note: The cable duct of the plug connector has a diameter of 9 mm.

Test the function

The perfect function of the sensor can be controlled when the sensor is connected to a data terminal (measuring station resp. indicating station).

For this purpose, the cup rotor is cautiously arrested by hand. The data terminal must then indicate wind speed 0.

When the cup rotor is moved by the wind, the indicated wind speed should be greater than 0. If a negative value is indicated, the wiring is reversed. If no values are indicated, please check the plug connector and the wiring.

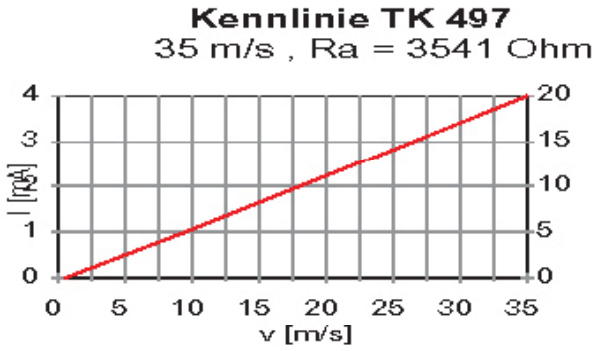
Maintenance

The sensor is maintenance-free. A periodical lubrication of the bearings is not necessary.

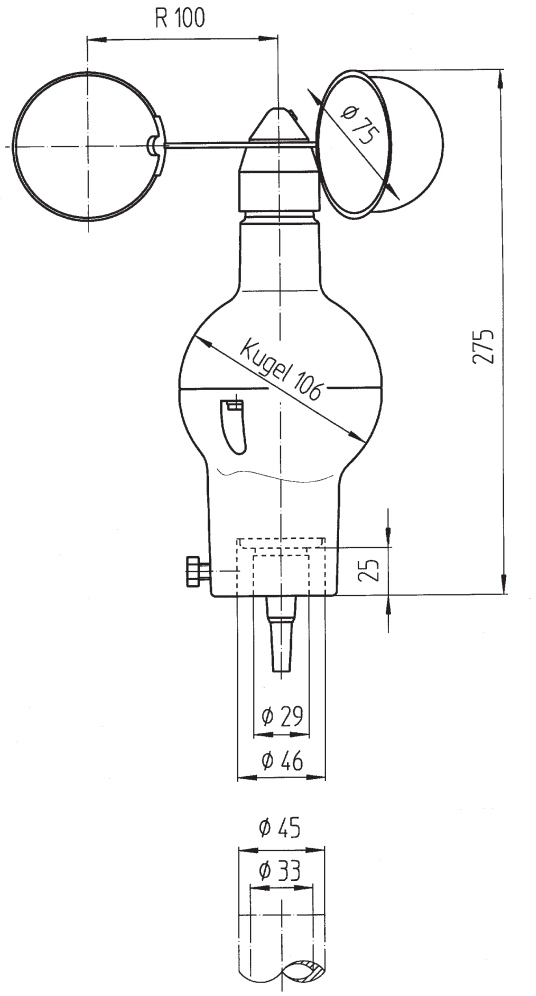
For a perfect registration of the wind speed the cup rotor must be free from dust and deposits. If necessary, it can be cleaned with a wet cloth.

Technical Data

Measuring range:	0...35 m/s
Current output:	4 mA at 35 m/s and Ra = 3541 ohm
Starting value:	approx. 0.6 m/s
Maximum speed:	0...60 m/s
Operating temp. range:	-35...+70 °C [1]
	[1] Weather permitting (no sleet, hoar-frost or sensor icing), sensors without heating withstand these temperatures.
Operating voltage of the heating:	24 V AC, 12 VA
Dimensions:	height 275 mm, cup-rotor-Ø 278 mm
Weight:	1.6 kg
Characteristic line:	TK 497



Dimensional Drawing



Version	Specification	Id-No.
1467 G4 Sensor for wind speed	Three armed cup rotor (R100) with DC generator G4 as measuring element; Weather resistant housing, lacquered; cup rotor anodized; Housing for mounting on a fitting tube with 45 mm outer-Ø. Operating temperature range: >0...+80 °C Current output: 4 mA ati 35 m/s and Ra = 3541 ohm	00 .14670. 060 000
1467 G4 H Sensor for wind speed	as 1467 G4, but with electrical shaft heating (regulated with built-in bimetallic switch) Operating temperature range: -35...+80 °C Operating voltage: 24 V AC, 12 VA	00 .14670. 160 000

Please note the loss of warranty and non-liability by unauthorised manipulation of the system. You need a written permission of the Wilh. Lambrecht GmbH for changes of system components. These activities must be operated by a qualified technician.

The warranty does not cover:

1. Mechanical damages caused by external impacts (e. g. icefall, rockfall, vandalism).
2. Impacts or damages caused by over-voltages or electromagnetic fields which are beyond the standards and specifications in the technical data.
3. Damages caused by improper handling, e. g. by wrong tools, incorrect installation, incorrect electrical installation (false polarity) etc.
4. Damages which are caused by using the device beyond the specified operation conditions.

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