

# ANEMOMETER

*THIES SMALL WIND TRANSMITTER*

## ANEMOMETER | THIES SMALL WIND TRANSMITTER



ORDER - N°	ELECTRICAL OUTPUT	ELECTRICAL SUPPLY	HEATING SUPPLY	MODEL IN EOL MANAGER
4.3515.30.xxx	50 Hz at 40 m/s	up to 24 VDC 20 mA, (0.5 W)	-	<b>THIES P6137</b>

### APPLICATION

The wind transmitter serves for the detection of the horizontal wind speed. The measurement values are output as potential-free pulses.

### CONSTRUCTION AND MODE OF OPERATION

The wind transmitter converts wind velocity into an electrical signal. The signal is generated by a reed contact, which is activated without contact magnetically by a cup anemometer.

The cup anemometer is mounted in a ball-bearing shaft and leads a magnet past the reed contact, resulting in a frequency proportional to the number of rotations of the cup anemometer. This frequency is almost linearly dependent on wind velocity. Cup star and upper part of the shaft consist of synthetic fibre, the lower part is made of aluminium.

## ANEMOMETER | THIES SMALL WIND TRANSMITTER

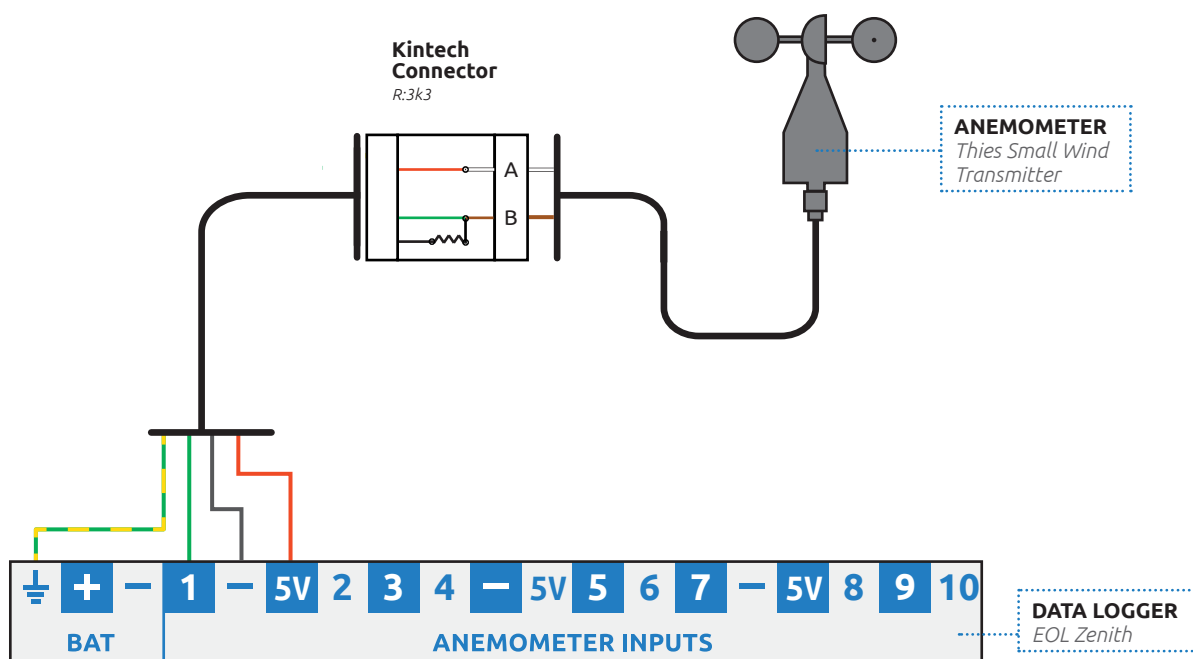
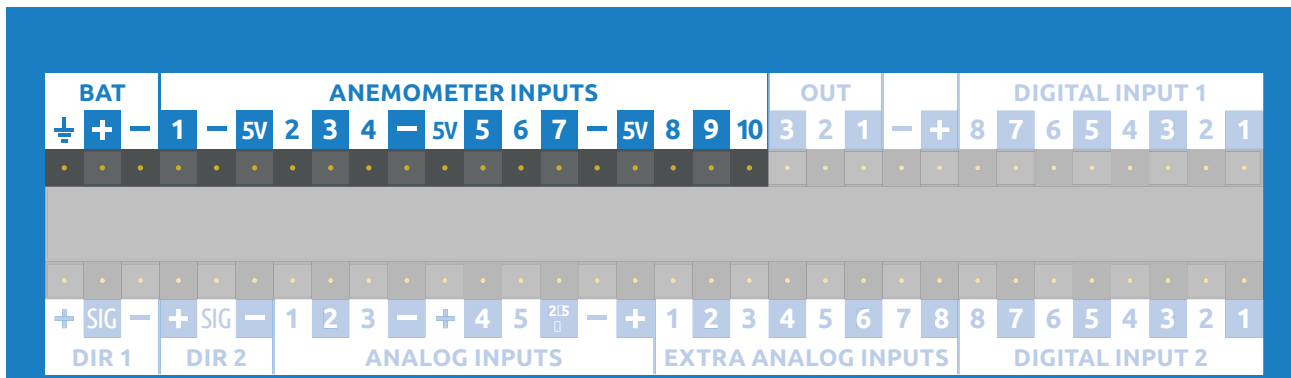
### TECHNICAL DATA

CHARACTERISTIC	DESCRIPTION / VALUE
Measuring range	0.5...40 m/s
Resolution	0.8 m wind run
Accuracy	±0.5 m/s or 1% of meas. value
Load	max. 60 m/s
Electrical output	50 Hz at 40 m/s
Contact	Reed contact (approx. $5 \times 10^8$ switching cycle)
Contact load	0.5 W, 24 VDC, 20 mA
Rv	0.5 W, 100 $\Omega$
Ambient temperature	-25...+60 °C, ice-free
Weight	ca. 0.3 kg
Protection	IP 54
Material Cupstar Housing Bottom	Polycarbonat with glass fiber (PC-GF10) Polyoxymethylen (POM) Alu (Si1)

# ANEMOMETER | THIES SMALL WIND TRANSMITTER

## INSTRUCTIONS

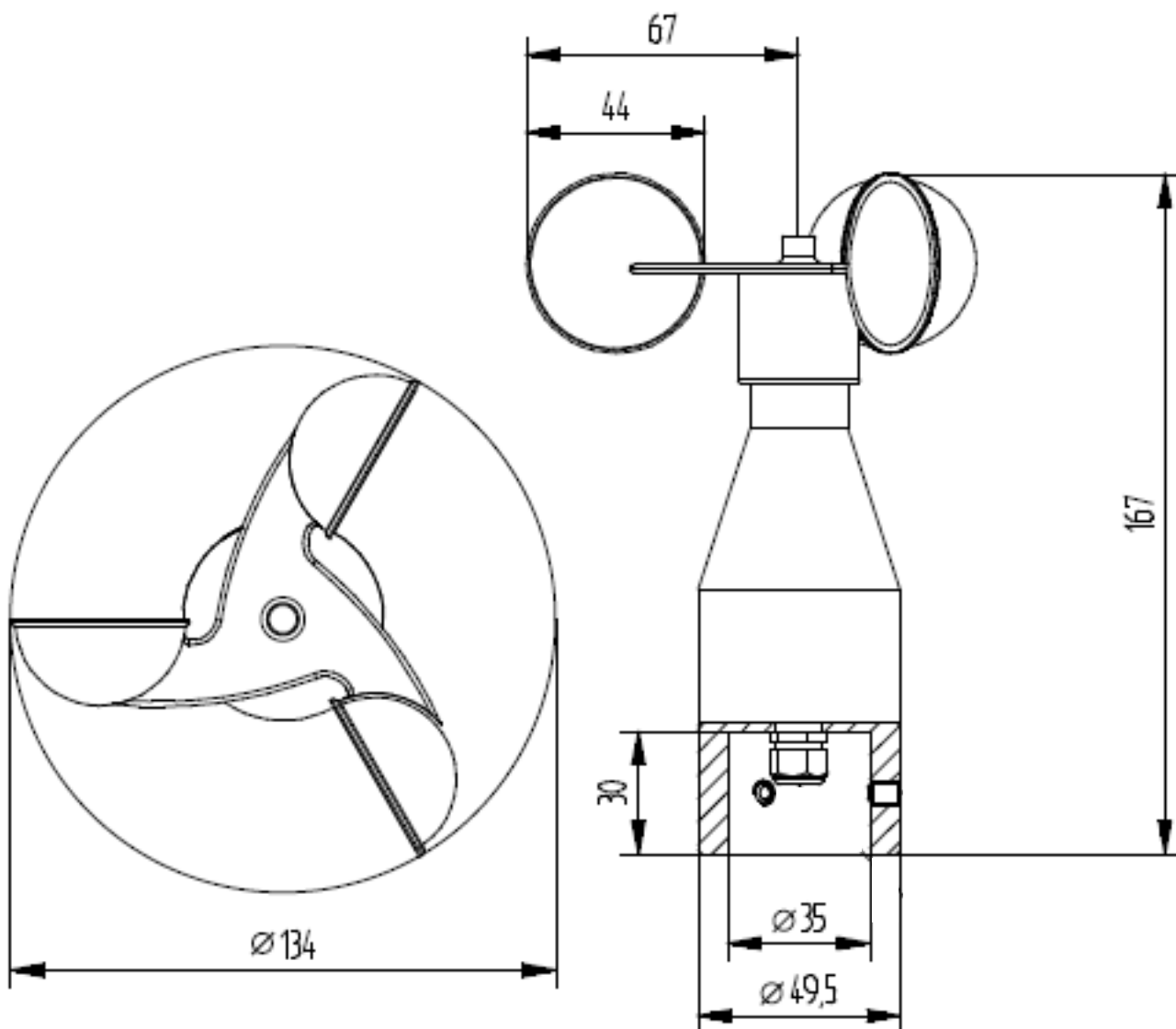
Use the following input channels on the logger to connect this sensor. See highlighted input channels marked here below. The wire colors used in the connection diagram below only applies in case the cable is supplied by Kintech Engineering.  
**For additional wiring & shielding information see the chapter "IMPORTANT" at the end of this dataheet.**



SENSOR PIN DESCRIPTION		KINTECH CONNECTOR		DATA LOGGER INPUT CHANNEL		KINTECH COLOR CODES	
○	Signal High	A	Supply	Anemometer Inputs	5V	●	Red
●	Signal Low	B	Signal	Anemometer Inputs	1	●	Green
			Reference	Anemometer Inputs	(-)	●	Black

# ANEMOMETER | THIES SMALL WIND TRANSMITTER

## SENSOR DIMENSIONS



# ANEMOMETER | THIES SMALL WIND TRANSMITTER

## HOW TO CONFIGURE THIS SENSOR IN EOL MANAGER

Open EOL Manager and go to the data logger you are working on. Open the “inputs” tab and select the following type and model:

- Section: Anemometers/Frequency
- Type: Anemometer
- Model: THIES P6137

**Calibration values:** Tick the “Std Cal” to use this sensors standard slope and offset. If you have the Measnet calibration certificate for this sensor insert the slope and offset values from this certificate.

Anemometers/Frequency

Ignore	Channel	Type	Model	Units	Serial Number	Height	Boom	Username	Std Cal	Slope	Offset	Std Dev	Max	Min
<input type="checkbox"/>	ANE1	Anemometer	THIES P6137	m/s		0	0	WS1_0_0_THIE...	<input checked="" type="checkbox"/>	0.800000	0.000000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	ANE2	Anemometer	-----	m/s		0	0	Anemo2	<input type="checkbox"/>	0.000000	0.000000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Diagram annotations:

- SENSOR SELECTION: Points to the 'Type' dropdown menu.
- MODEL SELECTION: Points to the 'Model' dropdown menu.
- DATASHEET DOWNLOAD: Points to the download icon next to the 'Units' column.
- STANDARD CALIBRATION: Points to the 'Std Cal' checkbox.

## IMPORTANT

- After configuring the sensor in EOL Manager make sure to upload the configuration file to your EOL Zenith data logger. See the “Quick User Guide” how to upload configuration files to the data logger.
- All sensor wire shields must be connected to the data logger GND terminal.
- The data logger should always be connected to a separated ground rod. **Not** to the lightning rod of the tower.
- The three 5V power supply outputs are completely independent and not associated to any of the signal inputs. The three 5V outputs can therefore be distributed according to needs.
- To store data such as Std Dev, Max and Min you should tick the corresponding boxes next to each anemometer channel when setting up your site file. Otherwise these parameters will not be stored.
- Cable recommendation (up to 150 m cable):

Sensor	Signal cable 2x0.5 mm <sup>2</sup>
--------	------------------------------------

Last modified: 26.06.2017

**KINTECH ENGINEERING**

[www.kintech-engineering.com](http://www.kintech-engineering.com)

[support@kintech-engineering.com](mailto:support@kintech-engineering.com)

Tel. +34 976 221 789