



**kintech**  
engineering



**DATASHEET**

# **THIES COMPACT**

## **WIND VANE (POTENTIOMETER)**

The Thies Compact wind vane is designed for the acquisition of the horizontal wind direction. The measuring values are output as electrical analogue signals.

# THIES COMPACT POTENTIOMETER | WIND VANE

## DESCRIPTION

The Thies Compact wind vane is designed for the acquisition of the horizontal component of the wind direction and is one of the most common wind vanes used for wind & solar resource assessment. The wind vane is fully compatible with all the data loggers manufactured by Kintech Engineering including the EOL Zenith and Orbit 360.

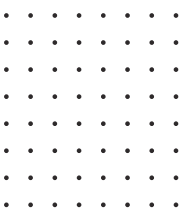
Having accurate wind direction data is a very important part of any wind development project. Studies show that even small wind direction measurement errors can have a dramatic negative impact on the total wind farm power output.

**Heated version:** The Thies Compact wind vane can be supplied in a heated version to improve performance under cold climate conditions.

**Note:** Given the impact incorrect wind direction measurements have, the recently updated IEC61400.12.1 (2017) now requires complete assessment of wind direction measurement uncertainties. By adding a Geovane to your wind measurement campaign (in combination with either a Thies First Class or a Thies Compact wind vane) you are guaranteed to get the most accurate wind direction data available on the market.

## APPLICATIONS

Wind resource assessment, solar resource assessment, site calibration, power performance studies, solar monitoring and meteorology.

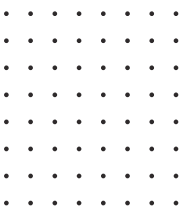


# THIES COMPACT POTENTIOMETER | WIND VANE

## FEATURES

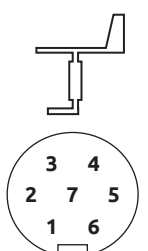
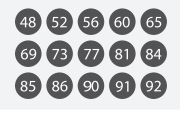

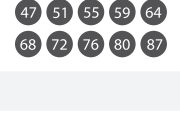


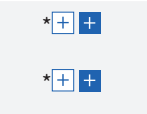


### Technical Data

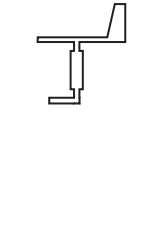
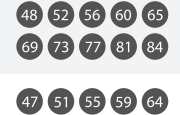

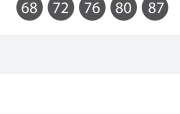
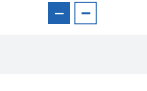

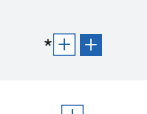


Measuring range	0...360° (0 Ω in the North point)
Resolution	0.5°
Starting threshold	≤1 m/s acc. to ASTM Standards D 5366-96 ≤0.4 m/s acc. to VDI Directive 3786 Part 2
Delay distance	< 2.5 m acc. to ASTM Standards D 5366-96
Accuracy	±3°
Measuring principle	Potentiometer
Potentiometer output	2 kΩ
Electrical supply for potentiometer	Voltage Us : 0...24 VDC The supply must guarantee a current limiting to maximum 1 mA – short cut at the North point
Operating voltage heating	24 V DC/AC, maximum 20 W
Ambient temperature	-40...+70 °C
Survival speed	80 m/s, 30 minutes
Connection	7 pol. plug
4.3129.X0.712	3 wires, 0.25 mm <sup>2</sup> , 100 mm long
4.3129.X0.012A	
Protection	IP 55
Weight	Ca. 1.10 Kg
Material:	
Housing	Aluminum (AlMgSi1)
Vane	Synthetic with fiber glass (PC-GF10)
Bottom	Synthetic (POM H2320)



# THIES COMPACT POTENTIOMETER | WIND VANE

## SENSOR WIRING TABLE

Sensor Model	Sensor Pin		Kintech Cable Colors		Orbit 360			EOL Zenith	
					Section	Terminal	Type	Section	Terminal
 (4.3129.X0.712)	3	Signal	○	White	Analog Channels		Signal	DIR	
	2	GND	●	Brown	Analog Channels		(-)	DIR	
	1			Do not connect					
	5			Do not connect					
	4	Us (+)	●	Green	Analog Channels		*5π	DIR	
		Shield	●	Yellow Green	Power Input			BAT	
	6	Heating (+)	●	Brown	Independent power supply 24 AC/DC				
	7	Heating (-)	●	Blue					

Sensor Model	Manufacturer Cable Colors		Kintech Cable Colors		Orbit 360			EOL Zenith	
					Section	Terminal	Type	Section	Terminal
 (4.3129.X0.012A)		Yellow	○	White	Analog Channels		Signal	DIR	
		Red	●	Brown	Analog Channels		(-)	DIR	
	1			Do not connect					
	5			Do not connect					
		Blue	●	Green	Analog Channels		*5π	DIR	
		Shield	●	Yellow Green	Power Input			BAT	
	6	Heating (+)	●	Brown	Independent power supply 24 AC/DC				
	7	Heating (-)	●	Blue					

**Note:** Base sensor view / Soldering connector view.

\*5π,  = Pulsating 5V with current limited (4mA). Only 1 sensor must be powered.

### HOW TO CONFIGURE IN ATLAS

Open Atlas and go to the data logger you are working on. Scroll to the “channels” section and select the following type and model:

- Group: Analog channels
- Sensor Type: Windvane
- Sensor Model: **THIES 2K**

### HOW TO CONFIGURE 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:

- Group: Wind Vanes / Analog Inputs
- Type: Windvane
- Model: **THIES 2K**

Last modified: 11.11.2019

For more information please contact [support@kintech-engineering.com](mailto:support@kintech-engineering.com) or visit our website [www.kintech-engineering.com](http://www.kintech-engineering.com)