



**kintech**  
engineering



**DATASHEET**

# **THIES COMPACT WIND VANE (TMR)**

The Thies Compact TMR wind vane is designed for the acquisition of the horizontal wind direction.

## THIES COMPACT TMR | WIND VANE

### DESCRIPTION

The Thies Compact TMR 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.

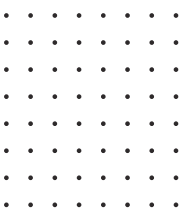
Having accurate wind direction data is a very important part of any wind development project. Studies show that even small wind direction measurement errors can have a dramatic negative impact on the total wind farm power output.

**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.

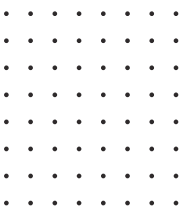


# THIES COMPACT TMR | WIND VANE

## FEATURES

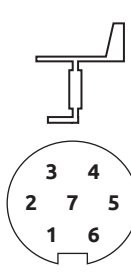


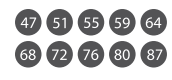

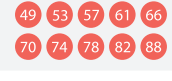





### Technical Data

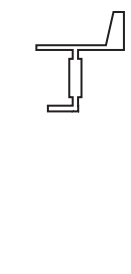


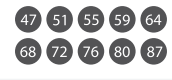

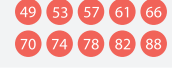

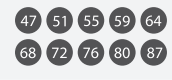



Measuring range	0...360° (0 Ω in the North point)
Resolution	ca. 0.4°
Starting threshold	≤1 m/s acc. to ASTM Standards D 5366-96 ≤0.4 m/s acc. to VDI Directive 3786 Part 2
Delay distance	<2.5 m acc. to ASTM Standards D 5366-96
Accuracy	±2°
Measuring principle	Magnetic
Electrical output	0...5 V at ≤ 2 kΩ
Operating voltage	8...30 V DC / 24 V AC
Current consumption	<10 mA + I <sub>out</sub>
Operating voltage heating 4.3129.60.x73	24 V DC/AC, maximum 20 W
Ambient temperature	-40...+70 °C
Survival speed	80 m/s, 30 minutes
Protection	IP 55, in position of application
Weight	
w/o cable	ca. 0.3 kg
with cable (4.3129.60.173)	ca. 0.3 kg + 0.075 kg / m cable
Material:	
Housing	Aluminum (AlMgSi1)
Vane	Polycarbonate, glass fiber reinforced
Bottom	Synthetic (POM H2320)



# THIES COMPACT TMR | WIND VANE

## SENSOR WIRING TABLE

Sensor Model	Sensor Pin		Kintech Cable Colors		Orbit 360			EOL Zenith	
					Section	Terminal	Type	Section	Terminal
 (4.3129.X0.773)	3	Signal	○	White	Analog Channels		Signal	DIR	
	2	GND	●	Brown	Analog Channels		(-)	DIR	
	1	Us (+)	●	Green	Analog Channels		*(+)	BAT	
	7		Do not connect						
	4	Reference	●	Yellow	Analog Channels		(-)	DIR	
		Shield	●	Yellow Green	Power Input			BAT	
	5	Heating (+)	●	Brown	Independent power supply 24 AC/DC				
6	Heating (-)	●	Blue						

Sensor Model	Manufacturer Cable Colors		Kintech Cable Colors		Orbit 360			EOL Zenith	
					Section	Terminal	Type	Section	Terminal
 (4.3129.X0.173)	●	Green	○	White	Analog Channels		Signal	DIR	
	●	Brown	●	Brown	Analog Channels		(-)	DIR	
	○	White	●	Green	Analog Channels		*(+)	BAT	
			Do not connect						
	●	Yellow	●	Yellow	Analog Channels		(-)	DIR	
		Shield	●	Yellow Green	Power Input			BAT	
	●	Grey	●	Brown	Independent power supply 24 AC/DC				
●	Pink	●	Blue						

**Note:** Base sensor view / Soldering connector view.  
 \*(+) = Bat+ with current limited (12mA). 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: **OUTPUT 0-5V: THIES TMR / K360V**

### 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: **Ouput 0-5V**

Last modified: 04.12.2019

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)