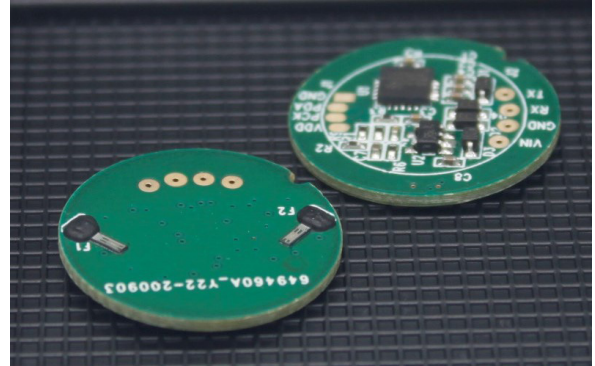


## DESCRIPTION

The PAV4000 series is a two dimensional anemometer specifically designed for cost-effective OEM integration. It consists of two MEMS thermal flow sensing elements arranged perpendicularly to each other on a flat PCB surface. The sensing elements detect component wind speeds along the X and Y axis, allowing the user to calculate wind speed and direction.



## FEATURES

- No moving parts
- Fast response time (< 1 s)
- Low power consumption

## APPLICATIONS

- Weather station
- Air conditioning comfort control
- Sports equipment for golfing and shooting

## ABSOLUTE MAXIMUM RATINGS

- Operating Temperature: -40 to 70 °C
- Storage Temperature: -40 to 90 °

## ELECTRICAL CHARACTERISTICS

Test Conditions:  $V_{in}=3.3\pm 0.01VDC$ ,  $T_a=25^{\circ}C$ . Relative Humidity:  $40\% < RH < 60\%$

SPECIFICATIONS	MIN	TYP	MAX	UNIT	CONDITIONS
PAV4005	0		5	m/s	Full scale is 5 m/s
PAV4015	0		10	m/s	Full scale is 10 m/s
Component Output	6554 to 58982			Count	- full scale to + full scale
Component Null Output		32768		Count	Component wind speed at zero
Resolution		16		Bit	
Repeatability		1%		F.S.	
Accuracy		5%		F.S.	
Response Time		1		s	
Supply Voltage		3.3		VDC	
Supply Current		20		mA	

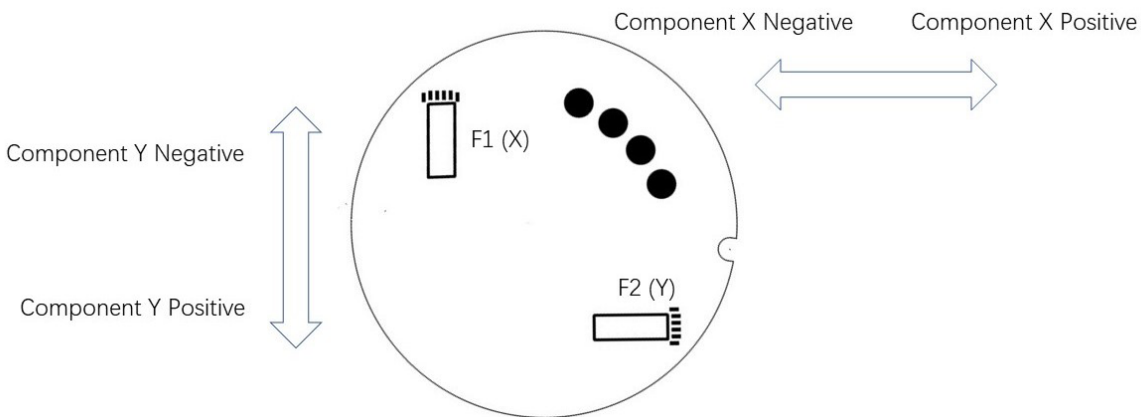
## OUTPUT DESCRIPTION

### Component Output to Wind Speed and Direction Conversion

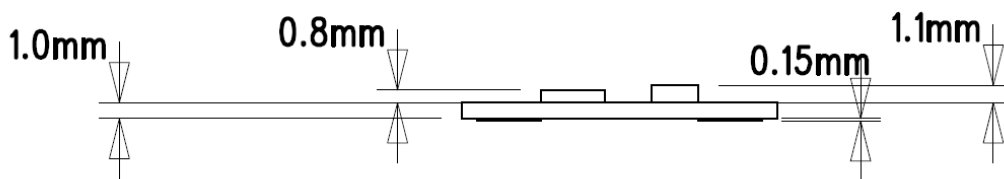
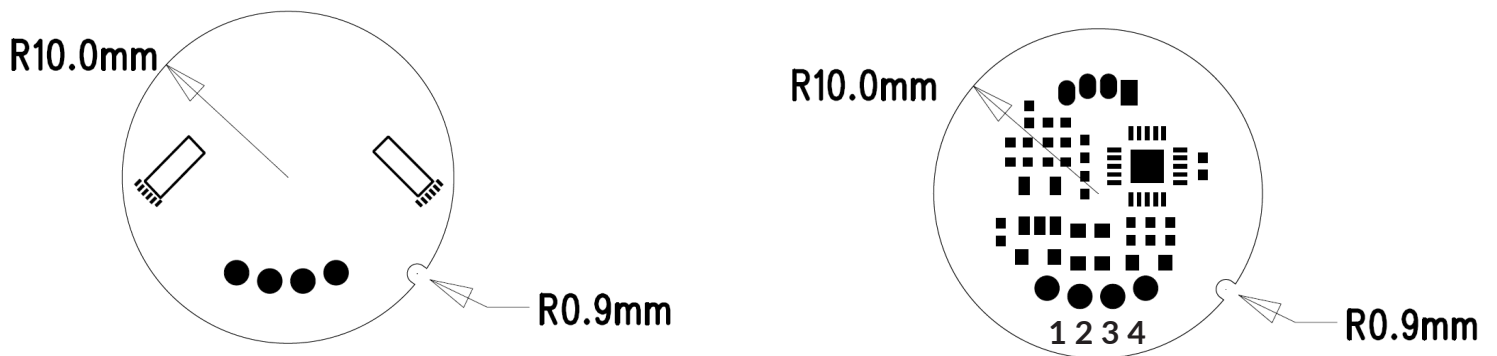
Wind Speed =  $[(\text{Component Count} - 32768) / 26214] \times \text{Full Scale Wind Speed}$

For example, for PAV4005 full scale wind speed is 7 m/s. When a component output reads 40000, the wind speed is +1.93 m/s. The direction is the same as the component direction.

When a component output reads 10000, the wind speed is -6.07 m/s. The direction is opposite of the component direction.



## SCHEMATIC AND DIMENSIONS



Pin#	Description
1	Vdd 3.3V
2	GND
3	SDA
4	SCL

## ORDERING INFORMATION

<b>PART NUMBER</b>	<b>SPECIFICATIONS</b>
PAV4005	Full scale wind speed 5 m/s
PAV4015	Full scale wind speed 10 m/s

Please contact Posifa or your local distributor to place an order.

### EUROPEAN DISTRIBUTOR

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