

RK110-01 Wind Direction Sensor

The RK110-01 Wind direction sensor is a sensitive wind direction indicator that gives a visual indication of wind direction. Digital circuits capable of strong RFI & EMI resistance and automatic temperature compensation are build-in. The construction of the sensor reflects the requirements for reliability and durability. Only the highest quality corrosion resistant materials, such as high strength aluminum and stainless steel are used. The sensor has good resistance to sand, dust, salt spray and fungus resistance. This sensor is ideal for wind resource assessment studies and similar applications requiring accuracy, reliability and minimal maintenance.



A: 16 direction, Resolution=22.5°



B: Resolution=1°

FEATURES

- Low starting threshold
- Massive all-metal construction
- Strong corrosion resistant ability
- Various output signals optional
- Surge protection design
- Double bearing design
- Easy Installation

APPLICATIONS

- Weather monitoring stations
- Ports
- Solar and wind power generation
- Mobile weather monitoring vehicles
- Remote airports & helipads

SPECIFICATIONS

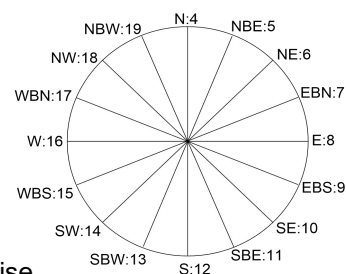
Output	4-20mA	RS485	0-5V/0-10V/1-5V
Supply Voltage	12-24VDC	12-24VDC	12-24VDC
Load Capacity	<500Ω(typ. 250Ω)		>2kΩ
Range	0-360°		
Accuracy	±3°	±3°	±3°

Resolution	16 direction① or 1°	16 direction① or 1°	16 direction① or 1°
Starting Threshold	<0.5m/s		
Limit wind speed	70m/s		
Ingress Protection	IP65		
Operating Temperature	-30℃-+70℃		
Weight(unpacked)	410g		
Main material	Vane:304stainless steel,Main Body:Aluminum alloy		
Finish	Polyester powder electrostatic spraying(black)		
Storage Condition	10℃-60℃@20%-90%RH		

①16 direction:22.5°.

OUTPUT CHARACTERISTICS

- **Current(16 direction)**
4...20mA is corresponding to 16 direction from north to north by west respectively.
- **Voltage(16 direction)**
The zero point voltage to full scale voltage is corresponding to 16 direction from north to north by west respectively.
- **Current(resolution=1°)**
4...20mA is corresponding to 0 ... 360° from north to north by clockwise.
- **Voltage(resolution=1°)**
The zero point voltage to full scale voltage is corresponding to 0 ... 360° from north to north by clockwise.
- **RS485**
If the transmission distance is over 100m, please add a 120Ω terminal matching resistances on the front end and back end of bus interface respectively.See the modbus communication protocol specification.

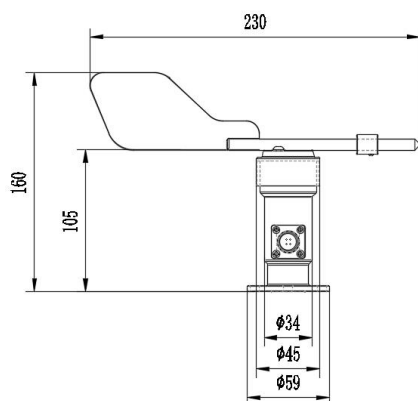


DIMENSION & MOUNTING

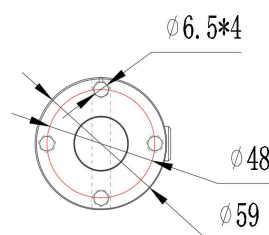
Flange mounted, fix four screws on the bracket and keep the product horizontal.

● Remark:

There is one red or white mark point on each product, it should be pointed to north when installation.



A: 16 direction, Resolution=22.5°



B: Resolution=1°

PARAMETER SELECTION TABLE

Remark	Series	Type	Output	Resolution	Cable Length	
RK						
	110					
		01				
			A			4-20mA
			B			0-5V
			C			0-10V
			D			
			E			RS485
			X			Other
				A		16 direction(22.5°)
				B		1°
					1500	Units:mm (typ)
					3000	Units:mm
					...	Units:mm

The default power supply voltage is 12-24VDC,if you have other requirements please confirm when ordering.

Example: RK110-01AB1500 Output:4-20mA,Resolution:1°,Cable Length:1.5m.



Complies with applicable CE directives.

Specifications subject to change without notice. Version 3.0

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