Wind Speed Sensor

（Model：F6000）

Manual

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Zhengzhou Winsen Electronic Technology Co., Ltd

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Zhengzhou Winsen Electronics Technology CO., LTD.

F6000 series wind speed sensor

Profile

F6000 is a new wind speed sensor based on MEMS technology and is developed by Winsen. Its consistency, response speed, sensitivity and other technical parameters are better than other similar products. F6000 wind speed sensor uses analog voltage output, three pins only, compact and lightweight, easy to assemble, is conducive to rapid deployment of applications. F6000 uses the latest MEMS technology, has good anti-jamming performance, ultra-low temperature drift, thus to ensure that this wind speed sensor has a high sensitivity and has same performance in the low wind speed measurement. At the same time F6000 wind speed sensor is stable and reliable, and also has overcome the shortcomings of traditional wind cup sensor such as slow response speed and short service life. At present, the sensor has gradually replaced traditional wind speed sensor and is widely used in various fields such as weather monitoring, industrial and mining safety and so on.

Features

Low temperature drift

Stable and liable

Short response time

High sensitivity

Anti-electromagnetic interference

Applications

Portable detector

Industrial and mining safety
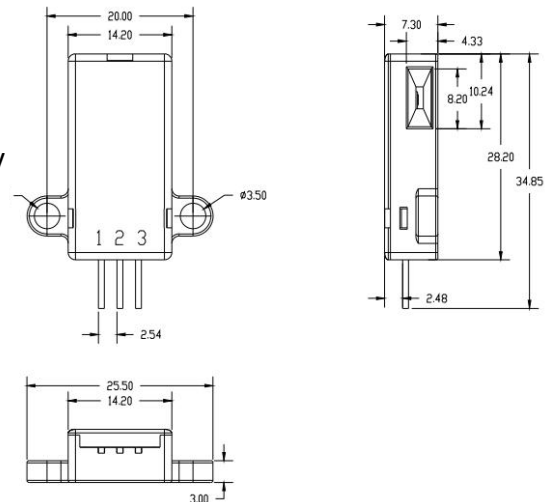
Health care

Field control

Meteorological monitoring

Figure1：Sensor structure

Figure2：pin definition

Pin	Function
1	VCC
2	GND
3	OUT

Technical parameters

stable 1.

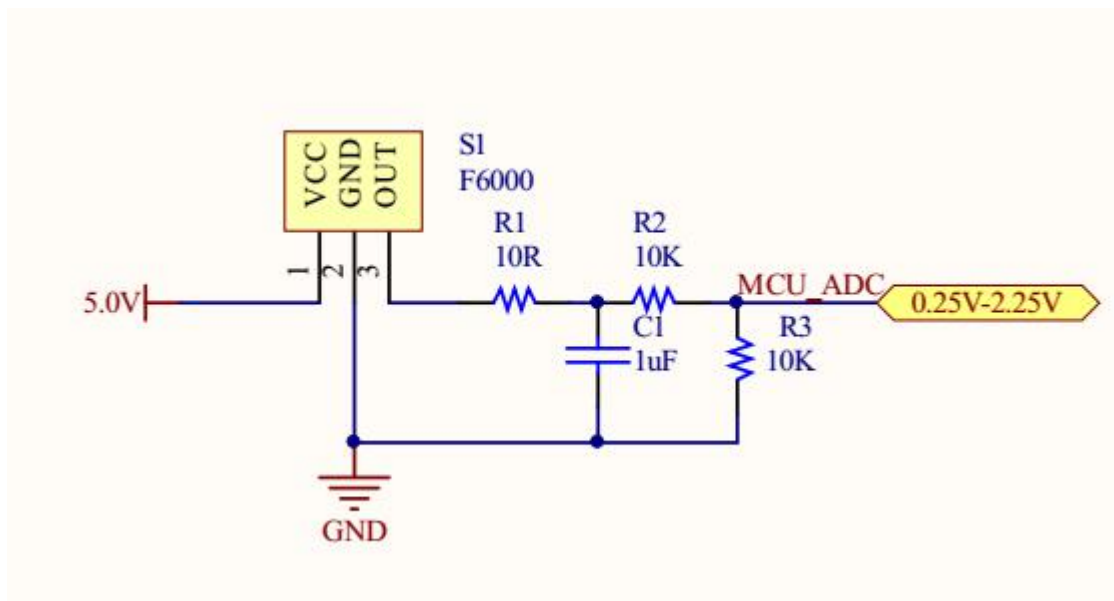| Model	F6000			
Measuring Range①	0.5、1、2、3、5、10、15、20、25、30、40、50、100m/s			
	Min	Typical	Max	Unit
Full scale output②	4.45	4.50	4.55	V
zero output②	0.45	0.50	0.55	V
Output Impedance	-	200	-	Ω
Working Voltage	5.0	5.0	14.0	V
Working Current	18	20	25	mA
Accuracy③	-	±5	±10	%F.S
Response Time	5	10	15	ms
Working Temp.	-25	-	65	℃
Storage Temp.	-40	-	90	℃

Provide any range between 0-100m / s. 0.5,1,2,3,5,10,15,20,25,30,40,50,100 m/s are conventional ranges, customization fees are needed for other ranges.

① There are various of output specifications for zero flow and full scale ranges, and we can also customize if it is out of specification.

② Testing conditions are room-temperature and fresh air.

Naming rules

F60 0 0 — □ — □

Actual measuring range

Output voltage：A:0-5V   B:1-5V   C:0.5-4.5V

Serial number

Range：0：0-10m/s   1:0-20m/s   2:0-30m/s...

Product feature ： 0-ordinary;1-customized;2-Low power
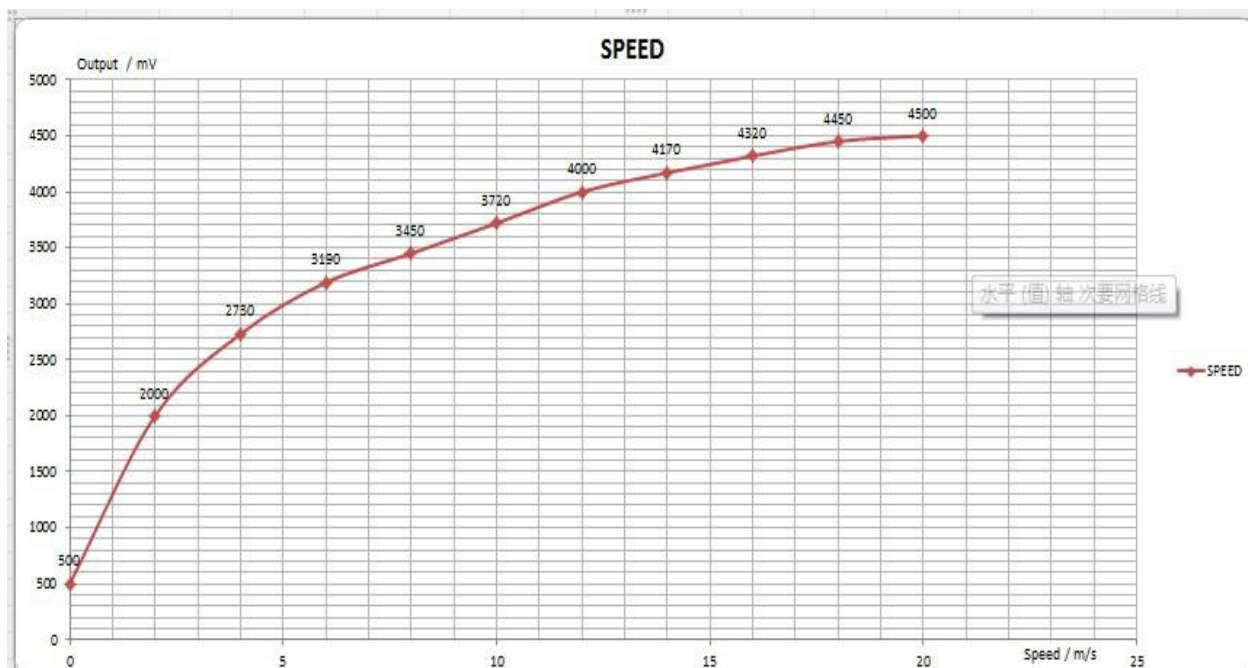
Wind speed product code
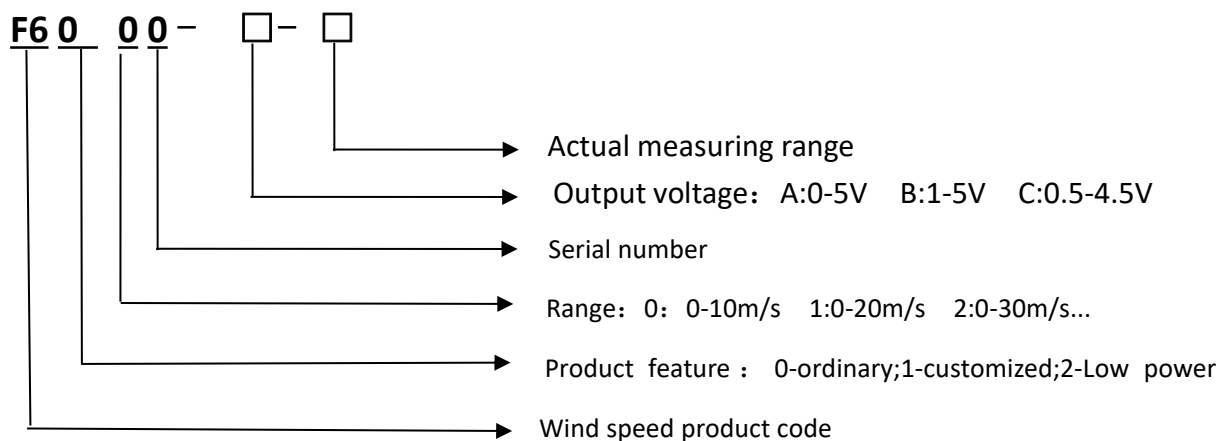
Typical application circuit

Typical output curve(range: 20m/s)

Wind Scale Table:

Wind Scale	Description	Wind speed (m/s)	(km/h)	Land image	Sea waves	Wave height(m)	Highest (m)
0	No wind	0.0-0.2	<1	Quiet, straight smoke	Calm	0.0	0.0
1	Light air	0.3-1.6	1-5	Smoke shows wind direction	Microwave peak without droplets	0.1	0.1
2	Light air	1.6-3.4	6-11	Feel the wind	Wavelet peak is not broken	0.2	0.3
3	Breeze	3.4-5.5	12-19	Flag started	Wavelet peak cracked	0.6	1.0
5	Fresh breeze	8.0-10.8	29-38	Small tree swing	Wave in the waves peaks group	2.0	2.5
6	Strong breeze	10.8-13.9	39-49	Cable sounded	Big waves foam from the peak	3.0	4.0
7	moderate gale	13.9-17.2	50-61	Difficult to work	Broken peak foam into a bar	4.0	5.5
8	Gale	17.2-20.8	62-74	Destroy the branches	Wavelength high spray	5.5	7.5
9	Strong gale	20.8-24.5	75-88	Little damage to the house	Wave peak rewind	7.0	10.0
10	whole gale	24.5-28.5	89-102	Pull up the trees	The waves roll and growl	9.0	12.5
11	Storm wind	28.5-32.6	103-117	Greatly destroyed	Peak was full of droplets	11.5	16.0
12	Typhoon (hurricane)	32.6-37.0	117-134	Greatly destroyed	Waves monstrous	14.0	-
13		37.0-41.4	134-149				
14		41.5-46.1	150-166				
15		46.2-50.9	167-183				

16		51.0-56.0	184-201				
17		56.1-61.2	202-220				
Over 17		≥61.3	≥221				

Cautions

1. Prohibit to use it in strong corrosive gas, toxic gas, explosive gas environment.
2. Please keep the sensor airway smooth, unclean air will drop the sensitive property of the sensor.
3. The sensitivity of the product will reduce or be damaged if it contacts to water.
4. Inaccurate connecting of power supply will damage the internal circuit.

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