1. Introduction

VMA-1 is a stable, safe, reliable digital anemometer, widely used in mining, electric, iron and steel, petrochemical, energy-saving, navigation, fan manufacturing, exhaust ventilation, sporting and many more industries.
This operating manual includes relevant safety information and warnings. Please read this manual carefully and observe all the cautions strictly.

⚠ Warning:
Before using the product, please read the operation safety rules carefully.

2. Out of the Box

Open the packing box and take out the meter. Please check carefully if any items below are missing or damaged.

1. AAA Batteries----------3
2. Operating manual ----------1

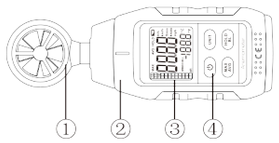
3. Operation Safety

1.Please check the meter and the accessories before using and beware of any damage or abnormal phenomenon. If you find the case is damaged or the LCD shows nothing, or you consider that the meter could not work properly anymore, please stop using it.
2.Observe the operating instructions while measuring.
3.Do not open the meter at will or change internal wiring to avoid damages to the mater.
4.When the LCD displays "🔋", replace the battery timely. Remove the battery if the meter is not used for a long time.
5.Do not store or use the meter in high temperature, high humidity, flammable, combustible, or strong electromagnetic environment.
6.Please use soft cloth and neutral detergent to clean the case for maintenance. Do not use grinding agent and solvent to avoid case corrosion and damaging the meter.

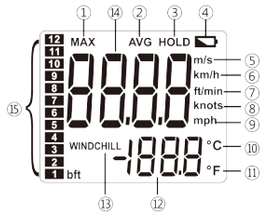
⚠ Warning:
Based on the principle of magnetic induction wind speed measurement, the product may be subject to interference under strong battery radiation condition. Please stay from those conditions as far as possible.

4. Product Outlook

1	Vane	2	Meter
3	LCD display	4	Function keys



5. Display Interface



1	Maximum measurement	2	Average value
3	Data hold	4	Low battery
5	m/s	6	km/h
7	ft/min	8	Knots
9	Mph	10	Celsius
11	Fahrenheit	12	Temperature value
13	Wind chill notification	14	Wind speed value
15	Beaufort scale		

6. Key functions and setup

1. ON/OFF:
Short press once to start up; short press again to power off.
Note: Product's auto power off feature can be disabled: Press and hold "HOLD" and then press "ON/OFF" key to enable/disable auto power off, LCD will display "APO OFF" to indicate status.

2. UNIT: Unit conversion key:
Short press this key and the wind speed value cycles m/s, km/h, ft/min, knots, and mph. Long press this key and the temperature unit changes between ℃ and °F.

3. MAX/AVG:
Pressing this key can select maximum, average and normal value measurement; select maximum and the meter will always show the maximum reading; select average and the meter will always show the average reading.

4. HOLD/BL:
HOLD: Short press this key once to hold the measurement; short press this key again to exit data hold and continue normal measurement.
BL: Long press this key to turn on backlight; long press this key again to turn off backlight.

7.Technical Specification

1. Wind Speed and Temperature

Function	Range	Resolution	Accuracy	Description
Wind Speed	0-30m/s (as standard)	0.1m/s	±(5%rdg+0.5)	
	1.4～108 Km/h (refer only)		±(5%rdg+15dgts)	
	0.7～58 Knots (refer only)		±(5%rdg+10dgts)	
	0.8～67 mph (refer only)		±(5%rdg+10dgts)	
	78～5905 ft/min (refer only)		±(5%rdg+180dgts)	
Temperature	-10~50℃	0.1℃	±2℃	
	14~122℃	0.2℉	±4℉	
Beaufort Wind Scale	0~12	1	±1	Only for reference
Sampling Rate			0.5s	Sampling rate is twice per second.
Overload Indication			OL	Shows "OL"
MAX/AVG			MAX/AVG	Shows "MAX/AVG"
Data Hold			HOLD	Shows "HOLD"
Backlight			BL	Manually turn on or off
Auto Power off			5mins	Automatically power off after 5mins without operating
Low Battery			3.0～3.5V	Shows low battery prompt when power is 3.0~3.5V
Wind Chill Notification			WIND CHILL	Wind speed with 5m/s and Temperature under 0℃ will be display "WIND CHILL"

2. General Type
a. LCD display: 4-bit LCD display. The displayed maximum is 9999.
b. Overload indication: When the wind speed is over 45m/s or the temperature is lower than -10℃ or higher than 50℃, "OL" will be displayed.
c. Low battery display: Prompt "🔋". The new battery should be replaced in time.
d. Sampling rate: 2/s
e. Sensor type: Magnetic induction type wind speed sensor and NTC negative temperature coefficient sensor.
f. When the temperature is lower than 0℃ and the wind speed is over 5m/s, the meter shows "WINDCHILL".
g. Impact strength: Can withstand the impact of landing from 1 meter's height.
h. Power requirement: 1.5V batteries (AAA) ×3
i. Product size: 164×57×30mm
j. Weight: 95g

3. Environment Specification
a. Indoor use
b. Altitude height: 2000m
c. Pollution level: 2
d. Working temperature and humidity:
0℃~40℃ (not greater than 80%RH)
40℃~50℃ (not greater than 45%RH)
e. Storage temperature and humidity:
-20℃~60℃ (not greater than 75%RH)

4. Electrical Specifications
a. Accuracy: Wind speed: ±5%rdg＋0.5 Temperature: ±2℃
b. Environment temperature: 23℃±5℃
c. Environment humidity: ≤80%RH

5. General Maintenance
Warning: please do not open the meter case to avoid affecting device accuracy or damage to the meter.
a. Maintenance and service of the meter should be accomplished by professional personnel or designated maintenance department.
b. Clean the case by dry cloth periodically, detergent with abrasive or solvent composition shall not be used.

6. Battery Installation and Replacement
a. The meter uses 3 pieces of AAA 1.5V batteries. Please see below for steps of battery installation and replacement.
b. Turn the panel down, push the battery cover open in the direction of the arrow, lift the cover and remove the batteries; install new batteries in accordance of polarity indications.
c. Please use batteries of same type instead of improper ones.
d. Close the cover tightly after installing new batteries.

VALUE Mechanical & Electrical Products CO., LTD
Add:Jiulong Avenue,Western Industrial District, Wenling, Zhejiang, China
Tel:+86-576-86191959 Fax:+86-576-86191957
Email:value@worldvalue.cn www.worldvalue.cn

VALUE
VALUE Creates Value

Making Your Job More Enjoyable

Anemometer Operating Instruction VMA-1

VALUE • Quality Assurance

NAVTEK High-end Series

一、概述

VMA-1是一款性能稳定、安全、可靠的数字风速计；广泛应用于矿业、电力、钢铁、石化、节能、航海、风扇制造、排气通风、体育运动等行业的风速测量。

本使用说明书包括有关的安全信息和警告提示，请仔细阅读内容并严格遵守所有的警告和注意事项。

⚠ **警告：**

在使用产品之前，请仔细阅读有关“安全操作准则”。

二、开箱检查

打开包装盒，取出仪表，请仔细检查项目是否缺少或损坏：

1. AAA 电池 -------- 三只
2. 使用说明书-------- 一张

三、安全操作准则

1. 使用前应检查仪表和附件，谨防任何损坏或不正常的现象。如发现本仪表壳体已明显损坏以及液晶显示器无显示等，或者您认为本仪表已无法正常工作，请勿再使用本仪表。
2. 在进行测量时，遵循使用操作说明。
3. 请勿随意打开仪表，以及更改内部接线，以免损坏仪表。
4. 当液晶显示器显示“ ”符号，应及时更换新电池；长时间不用应取出电池。
5. 不要在高温、高湿、易燃、易爆和强电磁环境中存放或者使用仪表。
6. 维护保养请使用软布及中性清洁剂清洁仪表外壳，切勿使用研磨剂及溶剂，以防外壳被腐蚀，损坏仪表。

⚠ **注意：**

基于磁感应风速测量原理，产品在电磁辐射较强场合可能受到干扰，使用时尽量远离电磁辐射较强场合。

四、外表结构图1

1. 风速传感器
2. 仪表外壳
3. LCD显示器
4. 功能按键

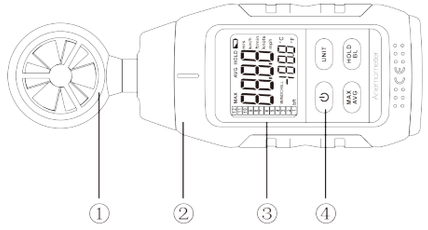


图1

五、符号显示图2

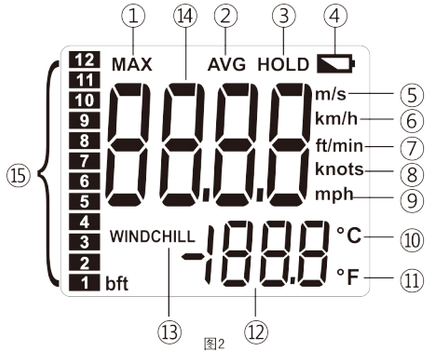


图2

1	最大值测量指示	2	平均值测量指示
3	数据保持指示	4	电池欠压指示
5	米/秒	6	千米/小时
7	英尺/分钟	8	海里/小时
9	英里/小时	10	摄氏度
11	华氏度	12	温度值
13	风寒提示	14	风速值
15	蒲福风力等级		

六、按键功能及设置

1.ON/OFF：开机／关机

开关机：短按1次开机；再次短按一次关机。

2.UNIT：风速及温度单位选择，

UNIT单位转换键：在风速测量时，短按此键：风速单位依次循环是：m/s, Km/h, ft/min, Knots, mph长按此键：温度单位在℃、℉间转换。

3.MAX/AVG：最大值/平均值选择

MAX/AVG最大最/平均值：在风速测量时，按此键可选择最大值、平均值及正常值测量；当选择了最大值，风速计始终显示最大的读值；当选择了平均值，风速计则显示平均值。

4.HOLD/BL:数据保持/背光

HOLD数据保持：在风速测量时，短按键1次保持测量数据，再短按1次退出数据保持继续正常测量。

BL背光：长按此键开启背光，再长按此键关闭背光。

七．技术指标

1.风速及温度

功能	量程	分辨力	准确度	说明
风速测量	0～30m/s	0.1m/s	±(5%rdg+0.5)	
温度测量	零下10～50℃	0.1℃	±2℃	
风力等级	14～122℉	0.2℉	±4℉	
	0～12级	1级	±1	风力等级只做参考。
采样速率			0.5秒	采样速率0.5秒
过载指示			OL	显示"OL"符号
最大值/平均值			MAX/AVG	显示"MAX/AVG"符号
数据保持			HOLD	显示"HOLD"符号
背光			BL	手动开启或关闭
自动关机			5分钟	无操作约5分钟后自动关机
低电提示			3.0～3.5V	显示低电符号
风寒提示			WINDCHILL	显示"WINDCHILL"

2.一般规格

a．液晶显示：4位数液晶显示，最大显示至"9999"。

b．过载指示：当风速大于45m/s或温度低于-10℃以及高于50℃超量程时以"OL"显示。

c．电池欠压显示：" "符号，应及时更换新电池。

d．取样速率：0.5秒。

e．传感器种类：磁感应式风速传感器及NTC负温度系数温度传感器。

f．当温度低于0℃风速大于5m/s时风速计会有风寒提示"WINDCHILL"。

g．耐撞击强度：可承受1米落地撞击。

h．电源要求：3节1.5V电池(7号)。

i．尺寸：164×57×30mm

j．重量：95g

3.环境限制

a．室内使用。

b．最大高度：2000米。

c．污染等级：2

d．工作温湿度：0℃～40℃（不大于80%RH）
40℃～50℃（不大于45%RH）

e．储存温湿度：-20℃～60℃（不大于75%RH）

4.电气规格

a．准确度：风速：±5%rdg+0.5　温度：±2℃

b．环境温度：23℃±5℃

c．环境湿度：≤80%RH

5.一般维护

⚠ 警告：
请不要打开仪表壳体，以免影响仪表精度或损坏仪表。

a．本风速计的维修与服务必须由有资格的专业维修人员或指定的维修部门完成。

b．定期性使用干布去清洁外壳，但不得使用含有研磨剂或溶剂成分的清洁剂。

6.电池安装与更换

a．本风速计的电源为3节1.5V AAA(7号)电池。
请按下面步骤安装和更换电池。

b．将产品面板朝下，按箭头方向推开电池门，将电池门掀起并取出电池；按照极性提示安装新电池。

c．请安装同一型号的电池，不要安装不适当的电池。

d．安装新电池后，装紧电池盖即可。

合格证			
产品名称	风速仪	型号规格	VMA-1
出厂编号		出厂日期	
检验员		检验日期	

浙江飞越机电有限公司
ZHE JIANG VALUE MECHANICAL & ELECTRICAL PRODUCTS CO.,LTD
地址:浙江省温岭市城西工业区九龙大道　邮编:317500
电话:0576-86191958　400 6691957　传真:0576-86191957
E-mail:sale@worldvalue.cn　www.worldvalue.cn

VALUE飞越
VALUE Creates Value 卓越品质飞越无限

让工作更轻松!

风速仪使用说明书
VMA-1

飞越·品质保证

NAVTEK领航 高端智能系列