

# WTF-B系列 数字风速风向仪 使用说明书

[WT-197V2.0]

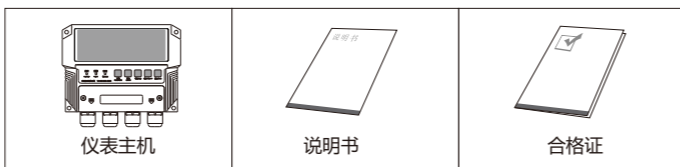
微特技术有限公司



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## 1 开箱清单



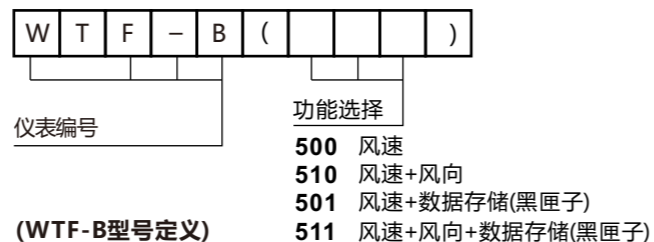
打开包装箱请检查风速风向仪主机是否完好无损，清点所有配件。如有不符请立即通知销售人员沟通解决。

※电缆按商务合同约定内容执行。

## 2 产品说明

WTF-B系列数字风速风向仪是专为各种大型机械设备研制开发的智能风速传感报警设备，内部采用先进的微处理器作为控制核心，外围采用了先进的数字通讯技术。系统稳定性高、抗干扰能力强，检测精度高，风杯采用特殊材料制成，机械强度高、抗风能力强，显示器机箱设计新颖独特，坚固耐用，安装使用方便。所有的电接口均符合国际标准，安装时免调试，适用于不同的工作环境。

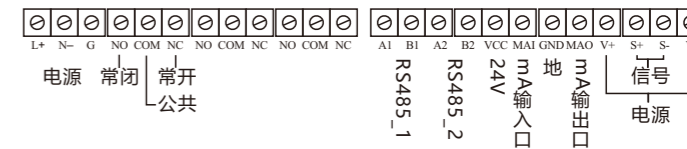
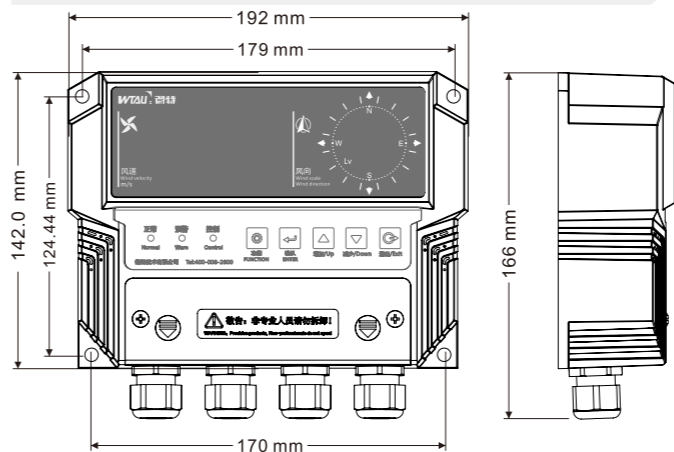
WTF-B系列数字风速风向仪用于测量瞬时风速和平均风速，具有自动监测、实时显示、超限报警和控制等功能。



## 3 主要技术参数

测量范围：0 ~ 60m/s  
分辨力：0.1m/s  
综合精度：±5% (F.S.)  
工作电压：24V ± 20%/220V± 20%/380V ± 20% (以实际仪表外标签为准)  
环境温度：-20°C -- +60°C  
相对湿度：90%(20°C)  
动作误差：<±3% (F.S.)  
继电器触点容量：AC220V 5A  
输出信号：≤2路 RS485/4-20mA  
Ip等级：IP65 安装方式：壁挂式

## 4 安装连接



将主机仪表安装在驾驶室合适位置,再将风速传感器屏蔽电缆线引出(备注：不同型号输出风速传感器需要接在对应端子上),接入主机仪表。

## 5 仪表调试说明

### 1. 按键功能介绍

- 功能键：进入功能菜单、输入数字时移动光标；
- 增加键：数字增加1、菜单切换到上一项、；
- 确定键：确定选择；
- 减少键：数字减少1、菜单切换到下一项；
- 退出键：放弃修改、返回上一级菜单；

### 2. 指示灯功能说明

工况	指示灯	蜂鸣器	工作条件
正常	绿灯	无声	表示仪表主机当电源正常
预警	黄灯	报警	达到设定预警值
控制	红灯	报警	达到设定控制值，输出继电器控制信号

### 3. 设置说明

注：仪表配置不同，显示界面会稍有不同。  
仪表通电，在正常界面下按“功能”键，进入“基础设置”菜单：按“增加”、“减少”键进行菜单切换，如需进入菜单项请按“确认”键，放弃请按“退出”键。

FUN1	预设风级报警值，风级控制值；
P1	风级预警设置 (1~12级)；
P2	风级控制设置 (1~12级)；
FUN2	预设风级预警，控制继电器；(0~3号继电器，0：无；1~3：指定1~3号继电器)
P1r	风级预警继电器设置；
P2r	风级控制继电器设置；
FUN3	当前AD值
Ad	输入风速mA信号对应的AD值
FUN4	输出使能，计算输出mA值；
OUTE	输出使能；(0：禁止 1：使能)
AdOc	当前输出真实mA值；
FUN5	从机端口比特率、地址
BAUD	传输风速(0~9600/1:19200/2:38400/3:57600)
Addr	从机端口地址；
FUN6	风向显示值及风向初始值；
dIn	风向显示值；
duC	风向初始值；

其中P1/P2/P1r/P2r/OUTE/bAUD/Addr,为可编辑菜单 (P1/P2/P1r/P2r产品默认为风级设置,如需要设置风速报警或风速控制请进入超级权限控制菜单,进行相应的修改)：

如果需要改变相应数值可以按“确定”键，按下“确定”键后左窗口可编辑位置开始闪烁，按“功能”键切换数值闪烁位置，按“增加”或“减少”键修改闪烁中的数值，修改完成后按“确认”键保存 (如果不保存数据可以按“退出”键退出)。

OUTE为MAO端子控制，其中0：禁止，1：使能；

其中Ad/AdOc/dIn/duC,为数据显示菜单，不可编辑 (其中部分菜单修改需进入超级权限控制方可进行操作控制，如风向修正设置)：

如果需要进入相应菜单，点击“确定”进入，查看相关数据。

Err	工厂模式；
0000	密码输入界面
Err01	风速/风级通信故障
Err02	风向通信故障
Err03	毫伏信号负极短路至电源故障
Err04	毫伏信号负极短路至地故障
Err05	毫伏信号正极短路至电源故障
Err06	毫伏信号正极短路至地故障
Err07	毫安输入信号故障
Err08	毫安输出信号故障

※工厂模式密码输入界面输入正确密码方可进入初始化、备份、恢复、所有参数初始化、蜂鸣器解除、控制解除、清除记录、记录导出、超级权限控制菜单；

当有特殊需要对以上参数进行修改时，请联系技术工程师或现场技术人员，获取相应密码进入相应菜单，依照技术人员的指导，对产品进行进一步修改设置；

## 风级对应风速 (M/S) /毫安 (mA) 表

风级	1	2	3	4	5	6
风速	0-0.2	0.3-1.5	1.6-3.3	5.5-7.9	8-10.7	10.8-13.8
mA	4.2	4.7	5.62	6.65	7.88	9.25
风级	7	8	9	10	11	12
风速	13.9-17.1	17.2-20.7	20.8-24.4	24.5-28.4	28.5-32.6	32.7-36.9
mA	10.77	12.39	14.16	15.98	17.94	20.00

## 6 维护

### 1. 仪表的维护

- a. 按标识及接线图正确安装本系统；
- b. 本产品属于精密仪表，注意防水，离人断电；
- c. 谨慎操作，非专业人员或无专业人士指导请勿操作；
- d. 精度校正周期为3~6个月一次，定期检查，维护。

### 2. 故障排除

- a. 仪表通电无显示、指示灯不亮  
处理方法：检查有供配电，检查保险管是否正常或咨询厂家；
- b. 风速风级达到后不报警  
处理方法：检查设置是否正确或咨询厂家；

## 7 服务体系

WTF-B系列数字风速风向仪质保期为一年。(自交付之日起12个月内,因用户的非正常使用,电源电压超标以及其它外力造成的损坏不在质保范围内。)

※本标准产品(不含定制)功能最终解释权属微特公司所有。  
产品返修时请注明详细的故障现象、使用工地、联系方式等内容。

# WTF-B DIGITAL ANEMOMETER Operation Manual

[WT-178V2.0]

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## 1 Unpacking list



please confirm if the digital anemometer appearance is in good,condition and check all the components ,if anything is missing,please contact with seller.

※cables is business contract matching parts.

## 2 Product Description

WTF-B Anemometer is designed as the intelligent wind speed sensing alarm devices,its interior adapts an advanced microprocessor as the control core,the exterior use the advanced digital communications technology.The system has high stability, strong anti-interference ability,high detection, wind cup with the special material,high mechanical strength, strong wind resistance ability,the display case design is novel and unique, durable, convenient installation and use. All the electric interfaces are in line with the international standards, without installation debugging, can be used on different working conditions.

WTF-B digital anemometer is used to measuring the current and average wind speed,it has the automatic monitoring, real-time display, overrun alarm control functions.

W T F - B ( )	Feature selection
Product number	500 wind speed
	510 wind speed+wind direction
	501 wind speed+Black box
(WTF-B)	511 wind speed+wind direction+Black box

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## 3 Technical Specifications

Measurement range: 0~60m/s

Accuracy: < 30m/s±(0.5+0.05v) ≥30m/s±5%

Resolution: 0.1m/s

Starting wind speed: < 0.7m/s

Work environment: - 20 60

Relative humidity: 90%(20 )

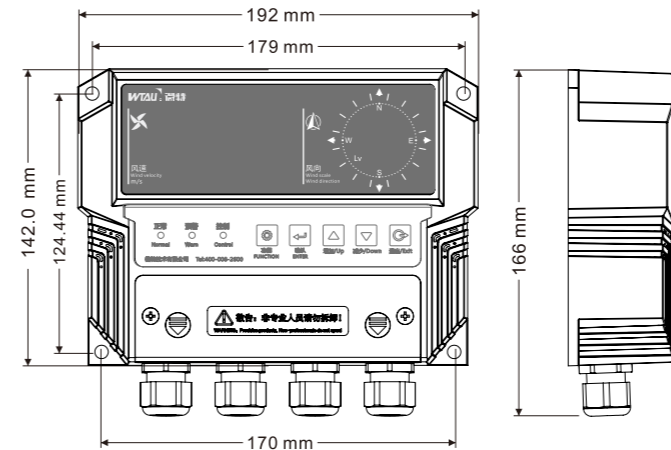
Action error: <±3% (F.S.)

Voltage Range: 24V ± 20%/220V± 20%/380V ± 20%(according to the label)

Output : ≤2 roads(passive) / RS485 / 4-20mA

IP GRASS: Ip65 installation mode: wall-mounted

## 4 Installation and Connection



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The P1 / P2 / P1r/P2r/OUTE/bAUd/Addr, for can edit menu (P1 / P2 / P1r/P2r product default for wind scale Settings, such as the need to set up the wind speed alarm or wind speed control please enter the access control menu, accordingly modify) : Step:press the "Enter" button to determine the right digital tube first blinking, press "FUN" key to switch the blinking cursor, press the "UP/DOWN" increase / decrease the modified value, save the value, press the "Enter" key to save.(If you don't save the data you can press "exit" to exit)

OUTE is MAO terminal control, 0: forbid, 1: Enable;

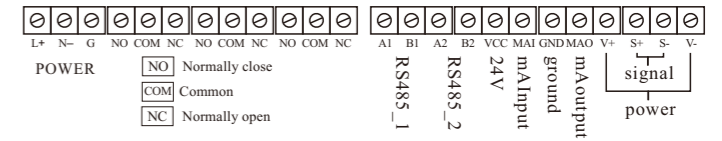
Where Ad/AdOc/dIn/duC, for data display menu, not editable.

Err 0	Factory setting menu;
0000	password input
Err01	Wind speed/level communication failure
Err02	Wind direction communication fail
Err03	mV signal negative short circuit to Power failure
Err04	mV signal negative short circuit to Ground failure
Err05	mV signal positive short circuit to power failure
Err06	mV signal positive short circuit to Ground failure
Err07	mA input signal failure
Err08	mA output signal failure

※ Input correct password if you need to enter the initialization, backup, recovery, initialization of all parameters, buzzer off, decontrol, record clearing, record export and super permission control menu, :

If need to modify the above parameters, please contact the technical engineer , get the password and enter the menu, and modify the products according to the guidance of the technical personnel;

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Install the main engine instrument in the appropriate position of the cab, and then draw out the shielded cable of the wind speed sensor , and connect it.

## 5 Dispal Calibration

### 1. key description

- [FUNCTION] : enter function menu/cursor switching
- [UP] : number plus 1/menu switch to next;
- [ENTER] : confirm/save;
- [DOWN] : number minus 1/menu switch to previous;
- [EXIT] : give up modify, return parent menu.

### 2.indicator light function

Working Situation	Light	Buzzer	Working Condition
Normal	Green	No voice	When wind speed is lower than the preset alarming value
Alarm	Yellow	alarm	When the wind speed is higher than the preset alarming value lower than the preset control value
Control	Red	alarm	When the wind speed is higher than the preset control value

### 3.Setup

After the instrument is powered on, press the function key to enter the menu interface, UP or DOWN key to switch the menu. If you need to enter the menu item, please press the ENTER key, and if you want to quit, please press the EXIT key.

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### Calculation of wind speed (M/S) /mA (mA)

Wind Scale	1	2	3	4	5	6
Wind Speed	0-0.2	0.3-1.5	1.6-3.3	5.5-7.9	8-10.7	10.8-13.8
mA	4.2	4.7	5.62	6.65	7.88	9.25
Wind Scale	7	8	9	10	11	12
Wind Speed	13.9-17.1	17.2-20.7	20.8-24.4	24.5-28.4	28.5-32.6	32.7-36.9
mA	10.77	12.39	14.16	15.98	17.94	20.00

## 6 Maintenance

- acording to the wiring diagram install the system ;
- Precision products, pay attention to waterproof, close the power when all the people left;
- careful operation, non-professional personnel or no professional guidance do not operate;
- 3~6 months for a precision calibration cycle, regular check and maintenance.

## 7 Product assurance

WTF-B Digital Anemometer guarantee period is 12 months which is from the installation acceptance delivery date on. But except follow damage reasons which are non-normal use, excessive supply voltage, and other external damage.

※This standard products (excluding customization) function finally explain belongs to the WTAU.

Please indicate the specific symptoms, use site, contact information and other content when the product returned for repair.

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