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0111-HW30
HOT WIRE ANEMOMETER
OPERATION MANUAL

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OF THE PRODUCTS.

VIDEO

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1. Product Overview

0111-HW30 Hot Wire Anemometer is a precise measurement meter used to measure wind velocity and wind temperature with stable, safe and reliable performance, for details, it is used to measure the volume flow in pipe, wind velocity and air flow temperature inside/outside. It is widely used to measure wind velocity in the industries of mining, electric power, steel, petrochemical, energy saving, sailing, fan manufacturing exhaust ventilation, sports and etc.

Features:
- Platinum-resistance wind velocity sensor features high accuracy, long life, strong anti-interference, high stability and etc.
- Slim probe design helps measure the small-size air outlet location.
- Split design with retractable probe is easy to measure.
- 99 groups of data storage.
- Wind flow mode helps measure the volume flow in pipe.
- Equipped with Al-alloy retractable rod, light weight, flexible
- Data hold
- Over-range indication
- Low battery indication
- Display with backlight

2. Safety

1. Do not use it in the steam condition.
2. Do not squeeze or impact the sensor to ensure the high-accuracy measurement and avoid sensor damaged.
3. Platinum resistance wind velocity sensor in the probe is not covered by warranties. Maintenance costs will be bore by user himself if needed to change a new one due to man-made damage.
4. Toward the wind sign of probe to the coming wind direction during the measurement.
5. Do not touch the sensor to avoid burn or damage.
6. Keep the sensor in clean condition to avoid dust and oil pollution.
7. Replace the battery in time when the low battery sign ▭ is showed, and take battery out if it is not used for a long time.
8. Do not pull the connecting wire at the bottom of the probe handle when retract the rod.
9. Cover the probe in time when not in use

3. Specification

Function	Range	Accuracy		Resolution
Wind velocity	0~30 m/s	± (4%+0.1m/s)	specified environment temperature: 15°C~30°C	0.01 (0~9.99) 0.1 (10.0~999.9) 1 (1000~9999)
	0~108 km/h	± (4%+0.4km/h)		
	0~58.3 kn	± (4%+0.2kn)		
	0~5906 fpm	± (4%+20fpm)		
	0~67.1 mph	± (4%+0.3mph)		
	0~11 bft	± 1 bft		1
Wind temperature	0℃~40℃	±0.5℃	specified wind velocity: ≥1.5m/s	0.1
	-20~0℃，40~70℃	±0.8℃		0.1
	32~104℉	±0.9℉		0.1
	-4~32℉，104~158℉	±1.5℉		0.1
Wind flow	maximum range: 9999×10²			
	unit: m³/min, CFM, L/s			
	wind pipe: area, circle, rectangle			
	area setting: area, circle (set radius), rectangle (set length and width)			
Warm up time	5s			
Wind velocity mode	fast or slow			
Screen refresh rate	0.5s			
Measurement mode	maximum/minimum/average mode			
Auto power off	5 mins no operation			
Retractable rod length	1.2m			
Battery	3×AAA battery			
Working time	about 3 hours (wind velocity 10m/s)			
Operation environment	0°C~40°C, ≤80%RH (no condensation)			
Storage environment	-20°C~60°C, ≤80%RH (no condensation)			
Power supply	3×AAA battery			
Dimension	181×63×40mm			
Weight	350g			

4. Structure
(1) Structure
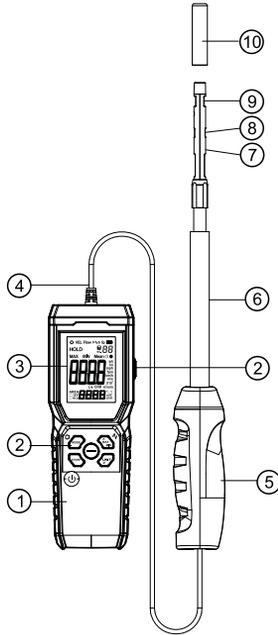
1	Hot Wire Anemometer	6	Retractable Probe Rod
2	Buttons	7	Probe of Sensor
3	LCD Screen	8	Wind Temperature Sensor
4	Connecting Wire	9	Wind Velocity Sensor
5	Probe Handle	10	Probe Sleeve

(2) Display
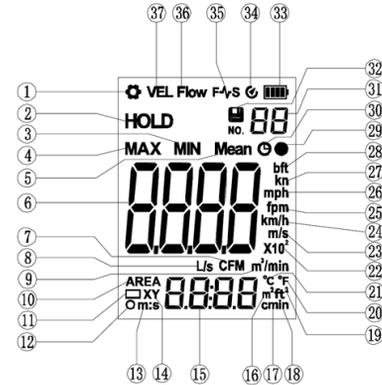
1	Setting	14	Length(X) & Width (Y)	27	Knot
2	Data Hold	15	Sub Display	28	Beaufort Scale
3	MIN	16	m²	29	Multiple Point Mean
4	MAX	17	cm	30	Timing Mean
5	Mean	18	Inch	31	No. Display
6	Main Display	19	ft²	32	Storage
7	CFM	20	Fahrenheit (℉)	33	Battery
8	Liter/s	21	Centigrade (℃)	34	Auto Power Off
9	m³/min	22	×10 / ×100 (During in the wind volume measurement)	35	Fast/ Slow
10	Area/Size	23	Meter/s	36	Wind Flow (Volume)
11	Rectangular Pipe Setting	24	Kilometer/h	37	Wind Velocity
12	Circular Pipe Setting	25	Feet/min		
13	Timing (m : s)	26	Mile/h		

(3) Buttons

| Buttons	Short Press	Long Press	Remark
(power)	Backlight ON/OFF	Power ON/OFF	/
(—)	Data Hold	/	/
(—)	Data Hold	/	Side button
MODE	Wind Velocity/Wind Flow (Volume) mode switch	Enter/Exit the settings menu	/
MAX MIN	Max/Min/Multiple Point Mean/Timing Mean	Fast/Slow	Adjust upward
UNIT	Wind Velocity/Wind Flow(Volume) unit switch	Temperature/Area switch in wind flow mode	Adjust downward
STORE	Data Record	Enter/Exit data storage viewing	Record data when HOLD

5. Operation Details

(1) Wind Velocity Measurement (VEL)

① Normal Measurement Mode
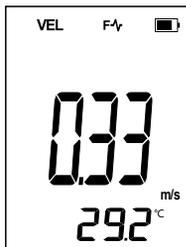
VEL   F-\r   (battery)

0.33

m/s

29.2 ℃

Place the probe sensor to the wind during the measurement, and the wind sign of probe towards the coming wind direction, as followings showed.

Wind

Sensor

Wind sign in red color
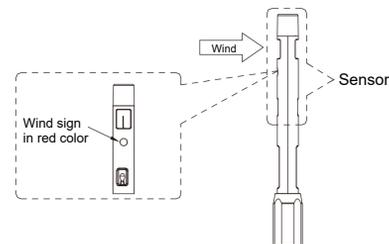
Remark:
Remove the probe sleeve and keep the probe upright to ensure the measurement accurate when the device is ON.
Extend the probe to measure the long-distance wind field if necessary.

② Statistics Mode
● Short press (MAX/MIN) MAX/MIN button to switch modes of normal, MAX, MIN, timing mean and multipoint mean measurement.
● MAX/MIN: Maximum or minimum value in this mode.
● Timing Mean Value: Mean value and cumulative duration show as follows:

VEL   F-\r   (battery)

Mean ⏱

0.47

m/s

m:s   13:40

- Mean of Multi-points

a) Switch to the mean measurement of multiple points.
b) For different locations' measurement, short press ⊖ button to mark down the current value and measured No.
c) When the measured location is changed, short press ⊖ button again to mark down the current value and measured No., maximum 10 values cumulated.
d) Long press ⊖ button to stop measuring, and mean value of current measurement shows. Short press ⊖ button again to the next measurement.
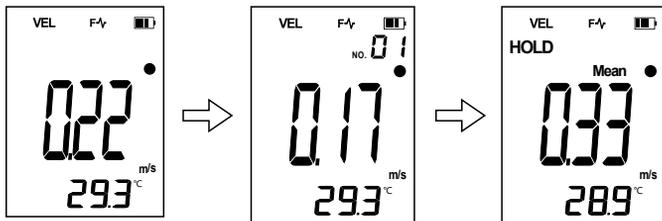
③ Wind Velocity Measurement in Fast/Slow

- Long press MAX/MIN button to switch the wind velocity measurement modes: Fast (F)/Slow (S).

Note: Fast wind velocity measurement is for fast measured value display Slow wind velocity measurement is for fast and not-easy-to-read wind velocity change.

④ Measured Values Storage, Viewing and Deleting

- Storage: Short press ⊖ button in the measuring interface and short press STORE button to save the measured values and No.
- Viewing: Long press STORE button in the measuring interface to enter the 'Data Storage Check', short press MAX/MIN button or UNIT button to view the data up and down, and long press STORE button to exit the viewing mode.
- Deleting:

a) Short press STORE button in the viewing interface, showing DEL
b) Short press ⊖ button can delete the current data, or short press MODE button to cancel deleting.

| Storage | Viewing | Deleting |

(2) Wind Flow Measurement (Flow)

- Short press MODE button to enter the mode.
- Set the area/size prior to the measurement, with **AREA** icon flashing on the lower left side of the screen.
- Short press MAX/MIN button or UNIT button to switch the wind flow measurement setting, see as follows:

Setting	Description
AREA	Directly set the area
AREA ▭	Respectively set the length (X) and width (Y) of rectangular pipe.
AREA ○	Set the radius of circular pipe

a) **AREA** Mode: Short press ⊖ button to enter the area setting with default area 0.01m². Short press or long press MAX/MIN UNIT can adjust the area.
b) For AREA▭ / AREA○ mode, set as the above steps.
c) When the setting is completed, short press ⊖ button to confirm the setting, and enter the 'Wind Flow Measurement' mode.

Enter the wind flow measurement mode | Set the area | Start to measure
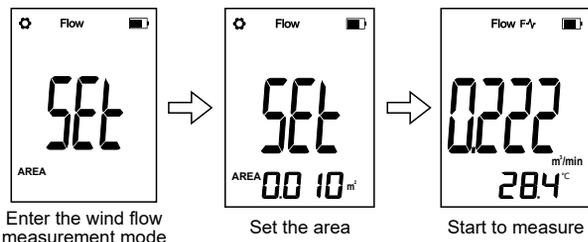
(3) Wind Temperature Measurement

- Place the probe sensor to the wind during the measurement, and the wind sign of probe towards the coming wind direction, as figure showed in the wind velocity measurement.
- The stable temperature reading is the measuring value of wind temperature. Remark: The accurate wind temperature measurement need to be in the wind environment.

(4) Parameters Setting

In the measuring interface, long press MODE button to enter the 'Parameters Setting' mode, see as follows:

Setting Options	Description
tP Unit	Set the temperature units, ℃/℉
ArEA Unit	Set the area units of wind flow, m²/ ft²
APo	Auto Power Off setting, ON/OFF
dEL ALL	Delete all stored data
rSt	Factory reset
Clr	Wind velocity/Wind flow zeroing (With protective cover and available values)

1. Short press MAX/MIN button or UNIT button to select the setting option.
2. Short press button to enter the settings option/confirm the setting.
3. Short press MODE button to back to the previous interface, and long press MODE button to exit the 'Parameters Setting'.

(5) Battery Installation & Replacement

Please replace the battery as per the following way:
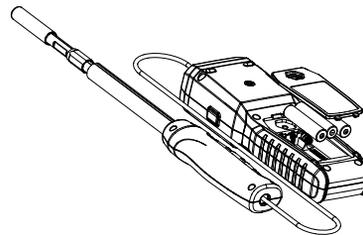
Caution:

The probe is a vulnerable part and NOT covered by warranty. Improper use may cause irreparable damage to the probe.