INSTRUCTION MANUAL

MT90

MINI THERMO-ANEMOMETER

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1. Introduction

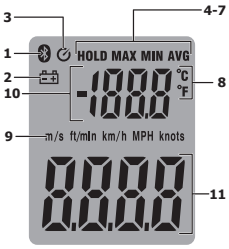
Thank you for purchasing the Thermo-Anemometer. The MT90 is professionally designed with a completely modern look. This instrument is equipped with Bluetooth making it easy to transfer the measured data to user's smart phone. Fast, easy, accurate measurement and data analysis.

2. Features

- Bluetooth interface for easy data transfer
- Air velocity selectable (m/s,km/h, ft/min, MPH, Knots)
- Air temperature measurement
- Continuous measurement
- Min/Max/Avg Readings
- Dual line, 4 digit LCD display with back light
- °C/°F temperature measurement units
- Auto power off & low battery indication

3. Display Layout

1. **Bluetooth** symbol
2. **Low battery** indicator
3. **Timing** power off symbol
4. **Maximum** reading of temperature/air velocity
5. **Minimum** reading of temperature/air velocity
6. **Average** reading of temperature/air velocity
7. **Hold** the displayed readings
8. **Temperature measurement units**
9. **Air velocity measurement units**
10. **Temperature readings**
11. **Air Velocity readings**



4. Meter Description

1. **LCD** Display
2. **Body** of meter
3 **Fan**
4. **HOLD/** ☼ button
5. **MAX/MIN** button
6. **Power** on/off button
7. **UNITS** button
8. **Bluetooth** button

5. Button Description

Power on/off, Auto-power off

Power on: Press the button '⏻' to switch power on, system has a default auto power off. Hold down the button to switch the power on and disable auto power off function. Hold down the button again to enable the auto power off function .

Power off: Press the button '⏻' to switch the power off.

Auto power off: Auto-power off signal '↻' displays in the left corner of LCD and the instrument will auto-power off in 10minutes of no button operations.

Note: Press the power on/off button for over 1 minutes, it will be recognized as faulty operation and the instrument will auto power off.

UNITS button: Press to switch air velocity unit; hold down to switch temperature unit.

button: Hold down to activate or deactivate Bluetooth.

HOLD/ button: Press to hold the current data; hold down to activate or deactivate back light.

MAX/MIN button: Press to record Maximum, Minimum and Average readings of temperature and air velocity.

Note: The **MAX/MIN** button is deactivated when holding the current readings.

6. Operation and Settings

Data Hold

Press the **HOLD** button to freeze the temperature and velocity readings, meanwhile, the hold symbol is displayed on LCD when measures. Press the **HOLD** button again to return to normal measurement.

Temperature and Air velocity measurement

1. Turn on the instrument by pressing power on/off button.
2. Press UNITS button to select unit of measurement.

Note: After power on, the meter will display the preset unit before last power off.

3. Put the instrument in the environment that is to be measured.
4. Observe readings on the LCD display, The larger digits displayed on main LCD is Air Velocity reading. The smaller digits displayed on upper right LCD is the temperature reading.

MAX/MIN/AVG reading

1. Press the **MAX/MIN** button for the first time, the instrument will enter Max tracking mode, the tracked max reading will display on the LCD.
2. Press the **MAX/MIN** button for the second time, the instrument will enter MIN tracking mode, the tracked min reading will display on the LCD.
3. Press the **MAX/MIN** button for the third time, the instrument will enter AVG tracking mode, the tracked average reading will display on the LCD.
4. Press the **MAX/MIN** button for the fourth time, the current reading will display on the LCD.

Note: Avg mode will automatically stop in 2hours and the instrument will auto power off.

Bluetooth communication

Hold down the **BLUETOOTH** button to activate the bluetooth function, it communicates after connecting with the downloaded App Meterbox Pro. The instrument can transmit measured data and instrument status to software and the software can control the instrument. The instrument will automatically turn off in order to lengthen the battery working life.

Battery Replacement

When the symbol appears on the LCD, please replace the old battery with a new one.

1. Open the battery compartment with a suitable screwdriver.
2. Remove the battery & replace the 9V battery.
3 Replace & close the battery compartment again.

7. Specifications

Air Velocity	Range	Resolution	Accuracy
m/s	1.10-25.00m/s	0.01m/s	± (3%+0.30m/s)
km/h	4.0-90.0km/h	0.1km/h	± (3%+1.0km/h)
ft/min	220-4920ft/min	1ft/min	± (3%+40ft/m)
MPH	2.5-56.0MPH	0.1MPH	± (3%+0.4MPH)
knots	2.2-48.0knots	0.1 knots	± (3%+0.4knots)
Air temperature	-10~60°C (14~140°F)	0.1°C/°F	2.0°C(4.0°F)

Function	Range
Velocity measuring units	m/s, ft/min, km/h, MPH, knots
Temperature measuring units	°C, °F
Sensors	Air velocity sensor; NTC-type precision thermistor
Display	Dual line, 4-digit LCD
Display update	2 times/sec
Battery	1 x 9V
Low batteryindication	will flash when voltage drops below 7.2V; & backlight will flash twice when voltage drops below 6.5V, then auto power off
Auto power off	after 10 minutes (without operation)
Dimensions (H x W x D)	213 x 54 x 36mm
Weight	172g

Unit of Measure Conversion Table

	m/s	ft/min	knots	km/h	MPH
1 m/s	1	196.87	1.944	3.6	2.24
1ft/min	0.00508	1	0.00987	0.01829	0.01138
1knot	0.5144	101.27	1	1.8519	1.1523
1km/h	0.2778	54.69	0.54	1	0.6222
1MPH	0.4464	87.89	0.8679	1.6071	1
°F=°C*9/5+32					

MAJOR TECH (PTY) LTD

South Africa

www.major-tech.com

sales@major-tech.com

Australia

www.majortech.com.au

info@majortech.com.au