

Air Quality Detector

(with flexible gooseneck sensor probe)

Wireless Connectivity compatible, replaceable



Model no.: MS-WAQD

1. Contents

- Air Quality Detector
- Operating manual

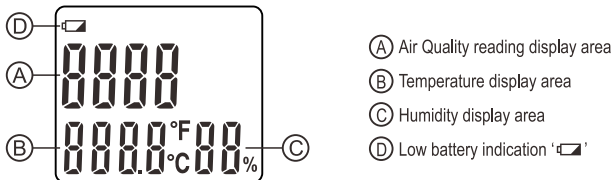


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Ambient temp. measurement and accuracy	1) -20.0°C (-4.0°F) ~ 0.0°C (32.0°F) and 70.0°C (158°F) ~ 100.0°C (212.0°F) / ±1.5°C (2.7°F) 2) 0.0°C (32.0°F) ~ 70.0°C (158°F) / ±1.0°C (1.8°F)
Relative humidity measurement and accuracy	1) 0% ~ 20% RH and 80% ~ 100%RH / ±5%RH @ 25.0°C (77.0°F) 2) 20% ~ 80% RH / ±4%RH @ 25.0°C (77.0°F)
Operating current / Standby current	< 150mA / < 10µA
Warm up time	10 secs.
LC display	Dual row with ambient temp. and humidity display
Flexible sensor	300mm (12 inches)
Back light ON/OFF and °C / °F	Selectable
External power supply	Support external USB type 'C' 5.0V DC / 0.5A adaptor
Low battery indication	≤ 2.8V approx.
Operating temp. and humidity	0°C ~ 40°C (32°F ~ 104°F) / 95%RH
Download recorded data through Smart phone (With external wireless module)	
Standalone mode (without external wireless module)	
Wireless connectivity transmit data to Smart phone / Tablet with iOS APPS or Android APPS (require external wireless module MS-WMB1, sold separately) can be used to any MEET's 'Wireless (BLE) Connectivity compatible' instruments	
Data logger compatible (require external wireless with memory module MS-WMBM1, sold separately) 'Wireless Connectivity compatible' instruments (BLE)	
Battery powered	3 x AAA (R03 / LR03)
Dimensions (L x W x D) mm	105 x 54 x 43 (main unit)
Weight (approx.) grams (without battery)	120

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5. Explanations for symbols and unit



6. How to replace the battery

The accuracy can be impaired to measure by using a meter with very low power battery. When the icon 'D' displays on the LCD, it is the time to replace 3 pcs. fresh AAA (R03 / LR03) alkaline type battery. Loosen the screw (anti-clockwise) and remove the battery cover of the unit, follow correct polarity indicated inside the battery compartment.
To avoid the chemical leakage from the battery, remove the battery if you are intended not to use the meter in a short period.

7. External USB input terminal (Type C)

For long duration operation / monitoring / data logging, use an external power adaptor or battery power bank which have output 5.0V / 0.5A DC and with USB type C plug.

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2. Introduction

MS-WAQD is a digital Air Quality Detector extremely sensitivity for detecting presence of various kinds of gases such as Methane (Natural gas); Propane; Butane; Acetylene; Biogas; Ammonia as well as abnormal air / particles such as TVOC; HCHO etc..

Additionally one of the most advantaged features is that the Air Quality Detector is compatible with Wireless Connectivity to transmit data to Smart phone / Tablet (require external modules, sold separately) to view data, record reading, capture picture with data and send the information to headquarter.

- Microprocessor Control with advanced digital signal processing.
- Digital display with 9999 count for sensitivity range.
- Precisely trace and locate the leak point.
- With 300 mm (12") flexible gooseneck sensor probe enable to detect the leakage from any angle and narrow tight space.
- Audible feedback sound when detected abnormal particles (when sensitive level > 5 digits).
- Additionally ambient temperature and humidity indication.
- Relative (REL) / Zero sensitive adjust during detecting.

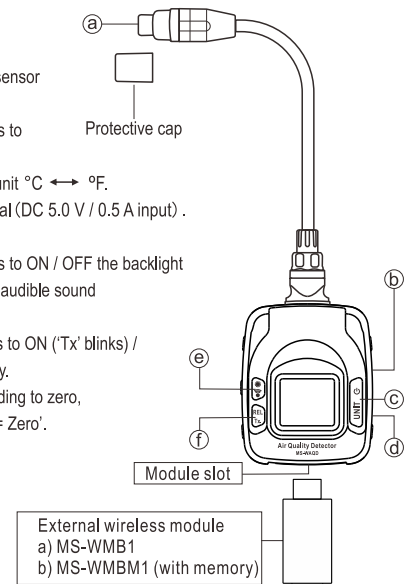
3. Specifications

Digital display the sensitivity level with increasing tone sound	Display 0~9999, over range 'Hi', audible tone sound when ≥ 5 digits
Response time	< 3 seconds
Relative reading (REL.) / Zero	At any sensitivity level

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4. Description

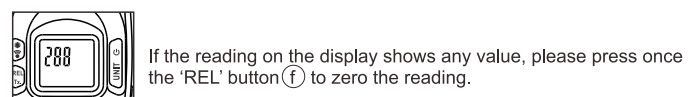
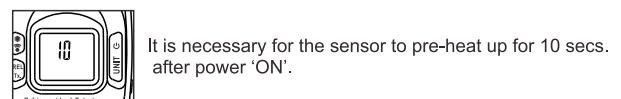
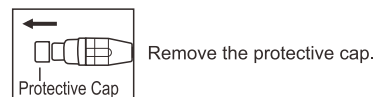
- Ⓐ Sensor.
- Ⓑ Ambient temperature / humidity sensor
- Ⓒ ON / OFF button 'ON/OFF'
- i) Press and hold for 3 seconds to Power ON / OFF the unit.
- ii) Press once to switch temp. unit °C ↔ °F.
- Ⓓ USB type C Power input terminal (DC 5.0 V / 0.5 A input).
- Ⓔ Setting button 1 'SET1'
- i) Press and hold for 3 seconds to ON / OFF the backlight
- ii) Press once to ON / OFF the audible sound
- Ⓕ Setting button 2 'SET2'
- i) Press and hold for 3 seconds to ON ('Tx' blinks) / OFF the wireless connectivity.
- ii) Press once to adjust the reading to zero, the LCD will display 'Zero'.



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8. Before using

Before take measuring, to ensure the highest sensitivity and stable reading, please place the detector in an open fresh and free of any gas environment and then start the power button Ⓒ to 'ON'.



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9. How to use

A) Calibration

- Before using, Place the sensor in an open fresh air and then remove the protective cap, press and hold the Power button (ⓐ) for 3 seconds till the LCD is activated and calibration starts.

End of the countdown for 10 seconds, calibration will finish automatically



☞ Suggest to zero the reading always before using enable for accurate results obtained.

Notes:

- 1) If placed the sensor tip near to a known undefined measured leak and then press 'REL' button (ⓐ) to zero, it is convenient to find higher concentration leak location whence measured.
- 2) If very low reading obtained, place the sensor in an open fresh air and press 'REL' button (ⓐ) to zero.
- 3) In case when absorbed 'high' level of concentrated gases, place the detector in an open fresh air and wait until the 'high' reading drops to lower level and then press the 'REL' button (ⓐ) to zero.

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Wireless Connectivity Compatible

1. Operating the Smartphone / Tablet and the meter

- Need external wireless module, either
 - a) MS-WMB1 (external wireless module)
 - b) MS-WBMB1 (external wireless with memory module, for data logging)

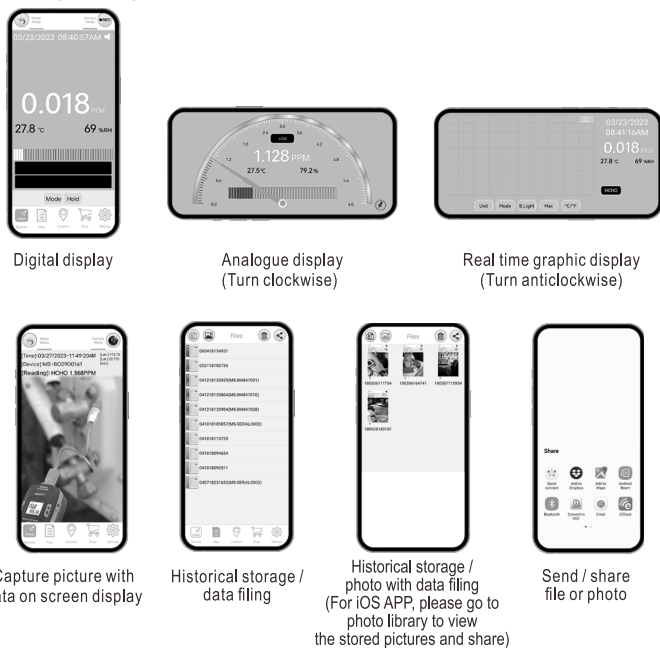
- Download free 'iMEET' iOS APPS from App Store or scan below QR code (The Smart phone / Tablet must be with iOS 11 version or above).

- Download free 'iMEET' Android APPS from Google Play Store or scan below QR code (The Smart phone / Tablet must be with Android 9.0 or above).



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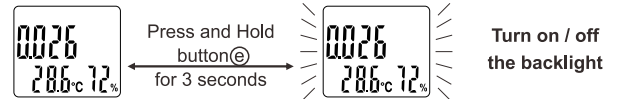
2. Reading display on Smart phone / Tablet



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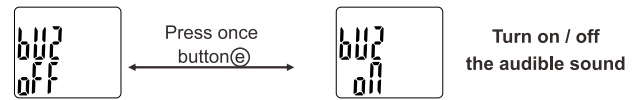
B) Backlight ON/OFF

- During measuring, press and hold the button (ⓐ) for 3 seconds. to turn on / off the backlight.



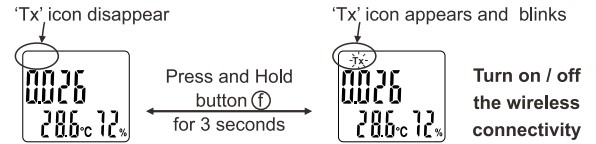
C) Audible sound ON/OFF

- During measuring, press once the button (ⓐ) to turn on / off the audible sound.



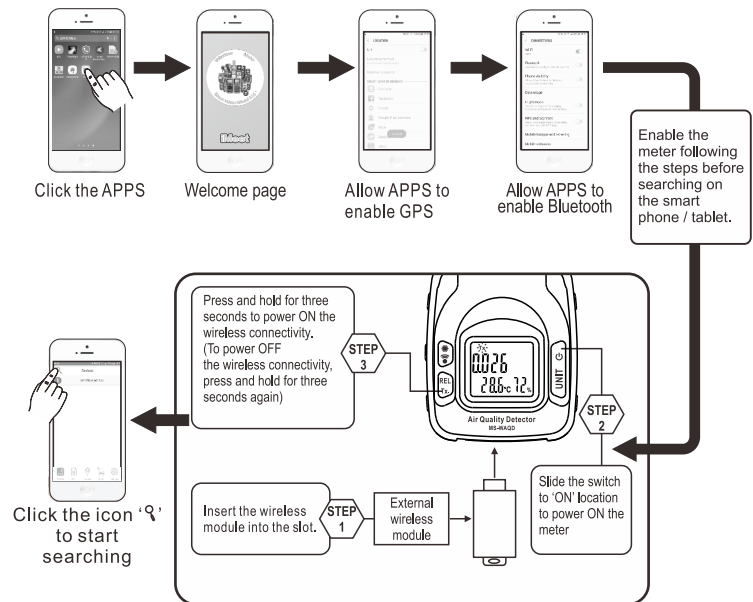
D) Wireless connectivity ON/OFF

- During measuring, press and hold the button (ⓑ) for 3 seconds. to turn on / off the wireless connectivity. (You must insert the external wireless module first).



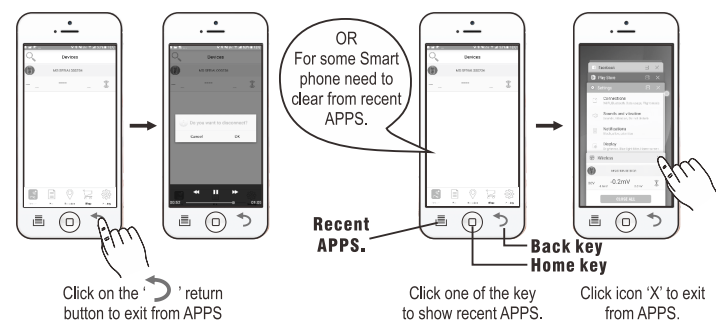
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- Click the APPS icon to start connectivity.



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3. Exit from wireless connectivity function



Note:

- A. Remember to disconnect the 'Wireless connectivity' APPS from the Smart phone / Tablet when not in use.
- B. You may connect the 'Wireless connectivity' if you need to always monitor the meter, but this will restrict the other user can't use the meter at same time.

4. Data logging

☞ Use part no. MS-WBMB1 wireless module with memory for data logger

- For long time recording, use external USB power .
- Setting option for data logging is included in same APPS.



Data Logger Compatible

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5. How to operate device, data log and data download by Smart phone

a) Home page



Connect the Smart phone to the device, then click the corresponding device to enter operating page



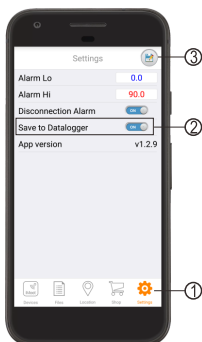
Display real time reading

- ① Air quality reading
- ② Current ambient temperature reading
- ③ Current ambient humidity reading

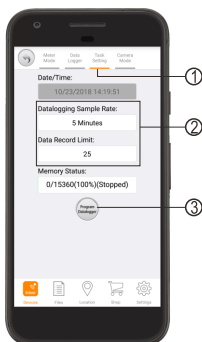
Operation

In button icon area ④, clicking them enable some functions such as 'unit switching', 'backlight ON/OFF'.

b) Data logging



Click the button ① and then button ②. To confirm setting, click the button ③.

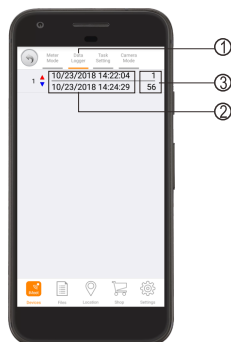


Click the button ① and then select the sampling rate / record limit ②. After, click the button ③.

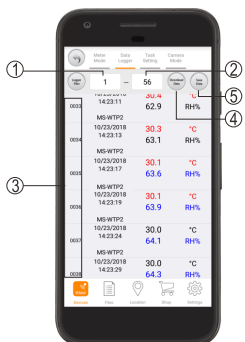


- a) To start logging, click the 'REC' button and it turns to red.
- b) To stop logging, click the 'REC' button again and it turns to white.

c) Data download

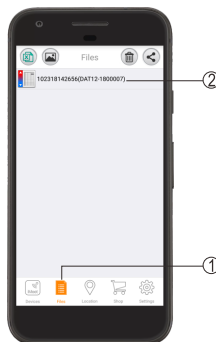


Click the button ① to find the details of data recorded ②. Column ③ indicates each file contains 'Data record limit', i.e. 56.



To view data, enter data no. in column ① to start and end in column ②. The column ③ indicates data no, i.e. 110

If need to download data to view on Smartphone (began in column ① and end in column ②), click the icon ④ to download, click the icon ⑤ to save



Click the button ① to view / download from:

- ① Smart phone (blank)
 - ② Bluetooth module (with module's name)
- Icon with ▲ means high alarm data recorded inside the file.
Icon with ▼ means low alarm data recorded inside the file.

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