

KNOWLEDGE & INPUT



Weather Station

YT60160

Function :

Calendar

Indoor and outdoor temperature or humidity

Barometer

Weather forecast

Wind speed

Wind direction

Rainfall record

Alarm clock

Moon phase

Temperature trend

Humidity trend

Barometer trend

In/out temperature alert

Radio controlled clock

Touch key



Weather station size :

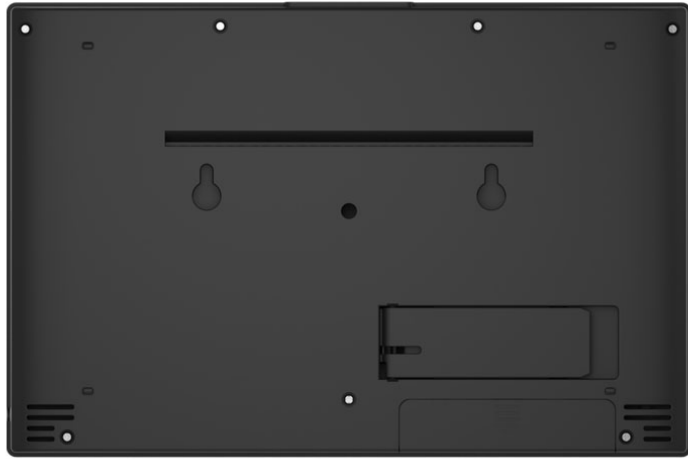
188.6x125.6x14.5mm

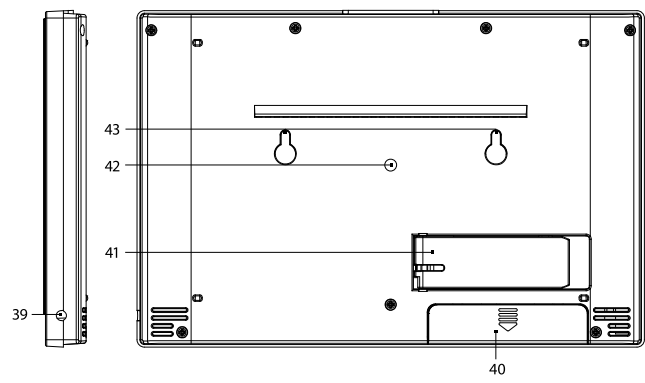
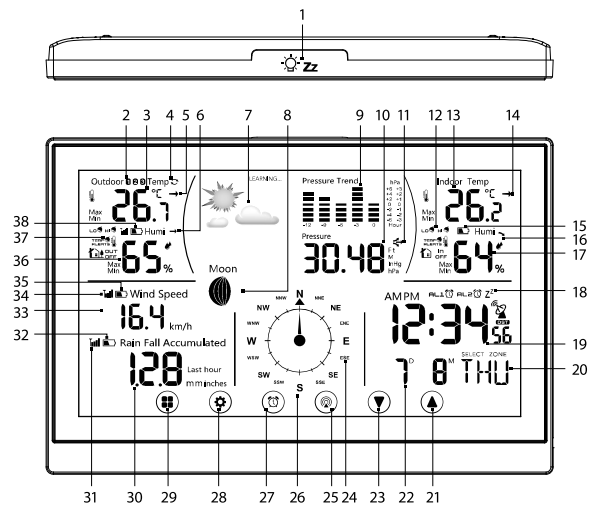
Anemometer size :

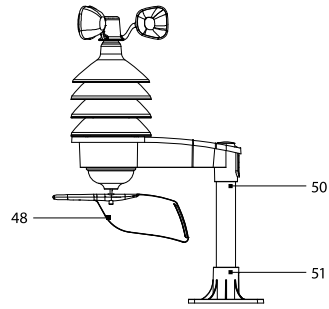
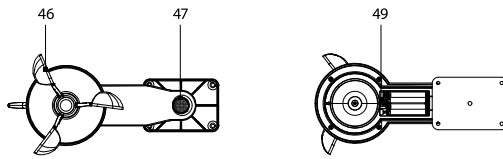
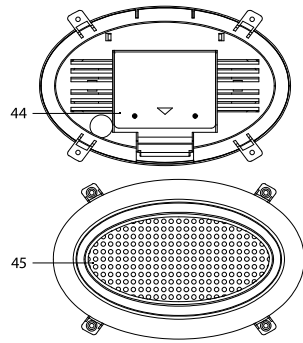
390x264x133mm

Rain gauge size :

166x105.5x118mm







GB | Profi Wireless Weather Station

- 1 – snooze/light button
- 2 – number of temperature/humidity and wind sensor 1/2/3
- 3 – outdoor temperature
- 4 – cycling through data from connected sensors
- 5 – outdoor temperature trend
- 6 – outdoor humidity trend
- 7 – weather forecast
- 8 – moon phase
- 9 – pressure history
- 10 – pressure value
- 11 – pressure trend
- 12 – indoor temperature alert
- 13 – indoor temperature
- 14 – indoor temperature trend
- 15 – station batteries low
- 16 – indoor humidity trend
- 17 – indoor humidity
- 18 – alarm no. 1/no. 2
- 19 – time, DCF signal reception, daylight savings time (DST)
- 20 – day of the week
- 21 – UP button – step forward in settings, memory of max/min temperature and humidity
- 22 – date
- 23 – DOWN button – step back in settings
- 24 – wind direction indicator
- 25 – CHANNEL button – searching for sensor signal/switching through information from connected sensors
- 26 – wind direction: S – south, W – west, N – north, E – east
- 27 – ALARM button – alarm activation/deactivation
- 28 – SET button – °C/°F unit of temperature setting, function settings
- 29 – MODE button – display mode switching
- 30 – data from precipitation sensor
- 31 – signal from precipitation sensor
- 32 – low batteries in precipitation sensor
- 33 – wind speed
- 34 – signal from temperature/humidity and wind sensor
- 35 – low batteries in temperature/humidity and wind sensor
- 36 – outdoor humidity
- 37 – outdoor temperature alert
- 38 – low batteries in temperature/humidity and wind sensor
- 39 – power adapter socket
- 40 – battery compartment
- 41 – stand
- 42 – alarm speaker
- 43 – holes for hanging on a wall
- 44 – precipitation sensor battery cover
- 45 – precipitation sensor grille
- 46 – wind sensor cups
- 47 – compass
- 48 – wind direction paddle
- 49 – temperature/humidity/wind sensor battery compartment
- Buttons: TX – send signal from sensor to station, 1/2/3 – switch sensor channel number, WAVE – manually activate/deactivate DCF signal reception
- 50 – mounting rod (26 mm diameter)
- 51 – mounting base

Technical specifications:

clock controlled by DCF77 radio signal

time format: 12/24 h

indoor temperature: -10 °C to +50 °C, 0.1 °C resolution

outdoor temperature: -30 °C to +60 °C, 0.1 °C resolution

temperature measurement accuracy: ±1 °C for 20 °C to +24 °C range, ±2 °C for 0 °C to +20 °C and 24 °C to +40 °C range, ±3 °C for -20 °C to 0 °C and 40 °C to +50 °C range, ±4 °C for other ranges.

indoor and outdoor humidity: 1–99 % RH, 1 % resolution

humidity measurement accuracy: 5 %

displayed units of temperature: °C/°F

barometric pressure measurement range: 800 hPa to 1 100 hPa

unit of pressure: hPa/inHg


wind sensor measurement range: 0 to 127.5 km/h

unit of wind speed: km/mph




precipitation sensor measurement range: 0 to 2,999 mm

unit of precipitation: mm/inch
radio signal range: to 100 m in open area
number of sensors which can be connected: max. 3 (temperature/humidity/wind sensor), max. 1 (precipitation sensor)
wireless sensor: transmission frequency 433 MHz, 10 mW e.r.p. max.
station power supply: 3× 1.5 V AAA batteries (not included)
adapter AC 230 V/DC 5 V, 300 mA (included)
temperature/humidity/wind sensor power supply: 4× 1.5 V AA (not included)
precipitation sensor power supply: 2× 1.5 V AA (not included)
station dimensions and weight: 17 × 192 × 127 mm, 364 g
temperature/humidity/wind sensor dimensions and weight: 275 × 135 × 310 mm, 377 g (without batteries)
precipitation sensor dimensions and weight: 100 × 106 × 166 mm, 220 g (without batteries)


Getting Started/Installation

1. Plug the power adapter into the station, then insert batteries first into the weather station (3× 1.5 V AAA) and then into: wireless temperature/humidity/wind sensor (4× 1.5 V AAA) and wireless precipitation sensor. The battery compartment of the precipitation sensor is protected by screws; use a suitable screwdriver.
2. When inserting the batteries make sure the polarity is correct to avoid damaging the weather station or sensors. Only use alkaline batteries of the same type; do not use rechargeable batteries.
3. Place all the units next to each other. The weather station will automatically detect the signal from sensors within 3 minutes. If signal from sensors is not detected, long-press the  button on the weather station to repeat the search and press the TX button on the sensor.
4. To ensure correct measurement, the temperature/humidity/wind sensor and precipitation sensor must be placed above the ground surface (at least 1.5 m) onto a horizontal surface and outside of buildings and structures. Both sensors must be firmly screwed on to prevent their damaging. First, screw the mounting plate onto a level surface, then mount the mounting rod into it. Screw the temperature/humidity/wind sensor onto the rod. Wind must flow freely around the wind sensor from all sides. Check that the wind direction indicator and paddles for measuring wind speed can rotate freely. The north arrow (N) on the built-in compass must point to the real north. Otherwise, wind direction will always be displayed incorrectly. When choosing a suitable place for mounting the sensor, check before installation that the main station is within range of the sensors. The range of the sensors may decrease substantially in areas with large number of obstacles.
5. Do not place the sensors onto metal objects as this will reduce their transmission range.
6. If the low battery icon is displayed, replace batteries in the sensors or weather station.

Changing Channel and Connecting Additional Sensors (Valid for Temperature/Humidity/Precipitation Sensor)



1. Choose the desired channel 1, 2, or 3 for the sensor by repeatedly pressing the  button. Then, long press the  button; the  icon will start flashing.
2. Remove the cover from the battery compartment on the rear of the sensor and set the sensor switch to the desired sensor channel number (1, 2, 3), then insert batteries (4× 1.5 V AA). Data from the sensor will be loaded within 3 minutes.
3. If sensor signal is not found, remove the batteries and proceed again in accordance with steps 1 and 2 or press the TX button.

Displaying Data from Multiple Sensors, Automatic Cycling through Values from Connected Sensors

Press the  button repeatedly to display data from all connected sensors on the weather station, one by one.

You can also activate cycling through data from all connected sensors:

1. turning on cycling


Repeatedly press the  button until the display shows the  icon.




Data from all 3 sensors will be shown automatically and repeatedly one after another.

2. turning off cycling

Repeatedly press the  button until the  icon disappears.

Radio Controlled Clock (DCF77)

The wireless temperature/humidity/wind sensor will automatically start searching for DCF77 (hereinafter referred to as DCF) signal for 5 minutes after pairing with the weather station; the  icon is flashing. (The DCF sensor is located in the temperature/humidity/wind sensor).

Signal detected – the  icon stops flashing and the current time will be displayed with the DCF icon .
Signal not detected – DCF icon  will not be displayed. DCF signal will be synchronised daily between 2:00 and 3:00 am.

You can also activate search for DCF signal manually.

Long-press the WAVE button located in the battery compartment of the temperature/humidity/wind sensor.

The sensor will start searching for DCF signal. To end the search, long-press the WAVE button again.

Note: If the weather station detects DCF signal but the current time on the display is incorrect (e.g. shifted ± 1 hour), you must always set the correct time zone for the country where you are using the station, see Manual Settings.



In standard conditions (at safe distance from sources of interference, such as TV sets or computer monitors), the reception of time signal takes several minutes. If the weather station does not detect the signal, follow these steps:

1. Move the weather station to another location and try to detect DCF signal again.
2. Check the distance of the clock from sources of interference (computer monitors or television sets). It should be at least 1.5 to 2 m during the reception of signal.
3. When receiving DCF signal, do not place the weather station in the proximity of metal doors, window frames and other metal structures or objects (washing machines, dryers, refrigerators etc.).
4. In reinforced concrete structures (cellars, high-rise buildings etc.), the DCF signal reception is weaker, depending on the conditions. In extreme cases, place the weather station close to a window toward the transmitter.

Reception of the DCF 77 radio signal is affected by the following factors:






- thick walls and insulation, basements and cellars,
- inadequate local geographical conditions (these are difficult to assess in advance),
- atmospheric disturbances, thunderstorms, electrical appliances with no interference elimination, television sets and computers, located near the DCF radio receiver.

Manual Settings

All changes in values are made using buttons  and .




After setting the desired value and not pressing any other buttons, the set values will automatically save and the display will switch to the main screen.

Setting Time, Date and Time Zone


1. Short-press the  button
2. Press the  button for 3 seconds and use the  and  buttons to set the following values: time zone, calendar language (ENG, GER, FRE, ITA, DUT, SPA, DAN), year, date format, month, day, 12/24 h time format, hour, minute, second.
3. Confirm the set value by pressing the  button; holding the arrow keys speeds up settings.

Alarm Settings

2 alarms can be set on the weather station.

1. Short-press the  button twice
2. Press the  button for 3 seconds and use the arrows to set the alarm hour and minute.
3. Confirm the set value by pressing ; holding the arrow keys speeds up settings.

Alarm Activation/Deactivation/Snooze

Repeatedly pressing the  button activates alarm 1 (AL1); alarm 2 (AL2); or both alarms at the same time (AL1, AL2); or deactivates the alarms.

You can postpone (snooze) the alarm by 5 minutes by pressing the **ZZ** button. After pressing, the **AL1** **AL2** **ZZ** icons will start flashing. Turn off the alarm by pressing . After pressing, the **AL1** **AL2** **ZZ** icons will stop flashing and only **AL1** **AL2** will remain on the screen. The alarm will activate again the next day.

Setting Altitude and Atmospheric Pressure

The station shows atmospheric pressure in hPa or inHg and keeps a history of pressure readings for the last 12 hours.

To achieve more accurate calculation of pressure values, it is advised to manually set the altitude for the place where the weather station is being used.

1. Short-press the button three times
2. Press the button for 3 seconds and use the arrows to set altitude between -90 m to +1,990 m (10 m increments).
3. Pressing the button switches between M/hpa and Ft/inHg units.
4. Short-press the button to quit settings.

Setting Unit of Precipitation

1. Press the button five times, then press the button for 3 seconds.
2. Use the and arrows to set mm or inches as units.
3. Short-press the button to quit settings.

Setting Unit of Wind Speed

1. Press the button six times, then press the button for 3 seconds.
2. Use the and arrows to set km/h or mph as units.
3. Short-press the button to quit settings.

Setting Temperature Limits for Maximum and Minimum Temperature

Temperature limits can be set independently for up to 3 outdoor temperature sensors.

When minimum or maximum temperature limit is activated, the **LO** (min) or **HI** (max) icon will appear on the screen and disappear after deactivation.

Temperature limit ranges

	Outdoor	Indoor
Minimum	-30 °C to +10 °C	0 °C to 23 °C
Maximum	28 °C to +60 °C	26 °C to 50 °C
Resolution	0.5 °C	0.5 °C




While on the main screen, repeatedly press the button to switch to sensor 1, 2 or 3 and proceed for each sensor as follows.

1. Short-press the button four times.
2. Press the button for 3 seconds and set the minimum outdoor temperature.
3. Short-press the button and activate (ON)/deactivate (OFF) the outdoor minimum temperature alert.
4. Short-press the button and set the minimum outdoor temperature.
5. Short-press the button and activate (ON)/deactivate (OFF) the outdoor maximum temperature alert.
6. Short-press the button and set the minimum indoor temperature.
7. Short-press the button and activate (ON)/deactivate (OFF) the indoor minimum temperature alert.
8. Short-press the button and set the minimum indoor temperature.
9. Short-press the button and activate (ON)/deactivate (OFF) the indoor maximum temperature alert.









When the set temperature limit is exceeded, an audio alarm will sound for 1 minute and the value will begin flashing.

Pressing any button on the screen cancels the alert sound, but the symbol of an active alert will continue flashing. Once temperature drops below the set limit, the symbol on the screen will stop flashing.

Temperature, Humidity and Pressure Trends

Rising 
 Constant 
 Falling 


Moon Phases

							
1	2	3	4	5	6	7	8


- 1 – New moon
- 2 – Waxing crescent
- 3 – First quarter
- 4 – Waxing gibbous
- 5 – Full moon
- 6 – Waning gibbous
- 7 – Last quarter
- 8 – Waning crescent

Note: In the period between 18:00 and 06:00, the moon icon will be surrounded by stars.


Displaying Maximum and Minimum Readings of Temperature/Humidity and Wind

Repeatedly pressing the  button will gradually show maximum and minimum measured temperature and humidity values and maximum wind strength.

The memory of measured values is automatically erased every day at 00:00.

Or long-press the  button to erase the memory automatically.

Displaying Measured Values from the Precipitation Sensor

Repeatedly pressing the  button will gradually show measured precipitation values in various time periods.


Accumulated

Today

Last hour

Yesterday

This week

Long-pressing the  button erases the measured value.

Station Display Backlight

When powered via adapter:

Permanent backlighting is set automatically.

Repeatedly pressing the SNOOZE/LIGHT button will allow you to set 4 different levels of permanent backlighting (off, maximum, medium, low).

When powered only by 3× 1.5 V AAA batteries:

Display backlighting is off. Pressing the SNOOZE/LIGHT button will turn the display backlight on for 5 seconds, then it turns off again. When the station is only powered by batteries, permanent backlighting of the display cannot be activated!

Note:

The inserted batteries serve as backup for the measured/set data.

If batteries are not inserted and you unplug the adapter, all data will be erased.

Weather Forecast

The station forecasts weather on the basis of changes in atmospheric pressure for the next 12–24 hours for an area within the range of 15–20 km.






The accuracy of weather forecast is 70–75 %. The forecast icon is displayed in field no. 7.

As the weather forecast may not always be 100 % accurate, neither the manufacturer nor the seller can be held responsible for any loss caused by an incorrect forecast.

After first setting or after resetting the weather station, a learning mode will be activated, indicated by LEARNING... appearing on the screen

The station will evaluate measured data and continuously increase the accuracy of forecast. This mode continues for 14 days, then the LEARNING... icon automatically disappears.


Weather Forecast Icons:

				
Sunny	Cloudy	Overcast	Raining/ snowing	Heavy rain/heavy snow

Upkeep and Maintenance

- Read the manual carefully before using this product.
- Do not expose the product to direct sunlight, extreme cold and moisture, and sudden changes in temperature as these may compromise detection accuracy.
- Do not place the product in locations prone to vibration and shocks; these may cause damage.
- Do not expose the product to excessive pressure, impacts, dust, high temperatures or humidity – these may cause
- malfunction, shorter battery life, damage to batteries and deformation of plastic parts.
- Do not expose the product to rain or moisture, it is not designed for outdoor use.
- Do not place any open flame sources on the product, e.g. a lit candle, etc.
- Do not place the product in places with inadequate air flow.
- Do not tamper with the internal electric circuits of the product. Doing so might damage it and automatically void the warranty.
- The product should only be repaired by a qualified professional.
- To clean the product, use a slightly moistened soft cloth. Do not use
- solvents or cleaning agents; they could scratch the plastic parts and cause corrosion of the electric circuits.
- Do not immerse the product in water or other liquids.
- The product must not be exposed to dripping or splashing water.
- In the event of damage or defect on the product, do not perform any repairs by yourself.
- Have it repaired in the shop where you bought it.
- Place the product out of reach of children; it is not a toy.
- Remove flat batteries; they could leak and damage the product.
- Use only new batteries of the recommended type and make sure polarity is correct when replacing them
- Do not throw batteries into a fire and do not disassemble or short-circuit them.
- This device is not intended for use by persons (including children) whose physical, sensory or mental disability or lack of experience and expertise prevents them from safely using the device, unless they are supervised or instructed in the use of the device by a person responsible for their safety. Children should be supervised to ensure they do not play with the device.

After use, the device and batteries become hazardous waste – do not throw them into unsorted municipal waste but return them to a collection point – e.g. the shop where you purchased the product.

 Do not dispose with domestic waste. Use special collection points for sorted waste. Contact local authorities for information about collection points. If the electronic devices would be disposed in landfill, dangerous substances may reach groundwater and subsequently food chain, where it could affect human health.

Hereby, EMOS spol. s r. o. declares that the radio equipment type E6016 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: <http://www.emos.eu/download>