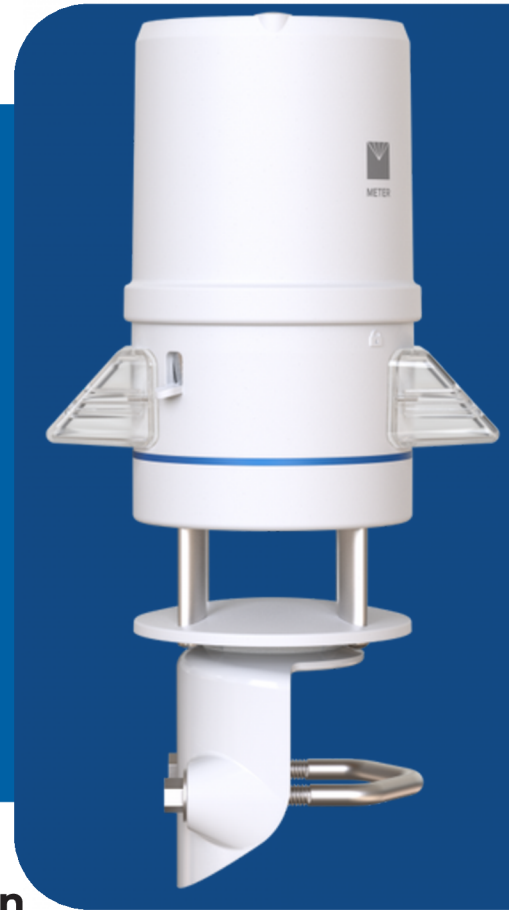


The ATMOS 41W all-in-one remote weather station is one of the world's few truly wireless weather stations measuring 10 environmental variables, including solar radiation, precipitation, air temperature (min, max, average), barometric pressure, vapor pressure, relative humidity, wind speed, wind direction, maximum wind gust, and precipitation EC.

FEATURES

- A true wireless weather station ideal for long-term, remote installations
- Incredible 10-minute installation
- All sensors and cellular or Wi-Fi communications integrated into a single, small form factor
- See, share, and manage data remotely with ZENTRA Cloud
- Tipping spoon added for dual rainfall measurement



Effortless Installation & Instant Data Transmission

Forget complex setups—the ATMOS 41W is the easiest weather sensor to install. Just pack it up, take it to your site, secure it to a North-facing post, and walk away. No technical expertise required.

Whether your site connects via cellular service or Wi-Fi, ATMOS 41W ensures uninterrupted data transfer directly to ZENTRA Cloud, where you can easily access and analyze meteorological insights from anywhere.

Superior Rain Gauge Technology & Multi-Parameter Weather Monitoring

The ATMOS 41W sets a new industry standard with dual rain measurement technology, combining a drop counter and tipping spoon for higher accuracy and extended range. Plus, it's the only rain gauge capable of measuring electrical conductivity, helping you differentiate between rainwater, irrigation water, or obstructions like bird droppings.

This all-in-one sensor also enhances measurements for solar radiation, water vapor, air temperature, wind speed, and more—aligning with standards set by leading meteorological organizations.

SPECIFICATIONS

Description	Range	Resolution	Accuracy
Solar Radiation	0–1,750 W/m2	1 W/m2	±5% of measurement typical
Relative Humidity (RH)	0–100% RH (0.00–1.00)	0.1% RH	Sensor measurement accuracy is variable across a range of RH.
Air Temperature	–63 to 60 °C	0.1 °C	Sensor - ±0.2 °C at 25 °C Measurement - ±0.6 °C from –20 to 50 °C For more information see Section 3.2.6 of the ATMOS 41W User Manual
Humidity Sensor Temperature	–63 to 80 °C	0.10 °C	±0.2 °C
Vapor Pressure	0–47 kPa	0.01 kPa	Sensor measurement accuracy is variable across a range of temperature and RH. See chart
Barometric Pressure	1–120 kPa	0.01 kPa	±0.05 kPa at 25 °C ±0.1 kPa from –10 to 50 °C ±0.5 kPa below –10 °C and above 60 °C
Horizontal Wind Speed	0–30 m/s	0.01 m/s	The greater of 0.3 m/s or 3% of measurement
Wind Gust	0–30 m/s	0.01 m/s	The greater of 0.3 m/s or 3% of measurement
Wind Direction	0°–359.9°	0.1°	±5°
Tilt	0° to 180°	0.1°	±1°
Precipitation	0–1,500 mm/h	0.017 mm	0–3 mS/cm±5% of measurement from 0 to 1,000 mm/h
Electrical Conductivity	0–3 mS/cm	0.001 mS/cm	The greater of 0.005 mS/cm or 15% of measurement

Communication Specifications

Internet Downloads SSL/TLS encrypted

Cellular Communication **3G Specifications:** UMTS 3G 5-band cellular module with 2G fallback

3G Coverage: 550+ global partner carriers

Cellular and data hosting service provided by METER

4G Specifications: 4G LTE-M and NB-IoT cellular

4G Coverage: VERIZON, AT&T®, and T-Mobile in the USA.

Select global partner carriers

Cellular and data hosting service provided by METER

NOTE: 4G is available in USA, Canada, and select other countries (Contact Customer Support or a METER sales partner for more information).

Mobile Communication Bluetooth 5.2—supporting Bluetooth Low-Energy protocol.

GPS Communication **Type:** Integrated 56-channel GPS/QZSS receiver

Update: Daily (automatic) and on-demand (manual)

Accuracy: ±4 m, with good sky view

Physical Specifications

Dimensions **Width:** 16.5 cm (6.5 in)

Height: 31.8 cm (12.5 in)

Memory Type Nonvolatile flash, full data retention with loss of power

Data Storage 8 MB (more than 100,000 records)

Battery Capacity 6 AA NiMH or alkaline batteries

Battery Life **Alkaline:** 7 months typical for hourly uploads or 4 months with 15-min data upgrade.

NiMH: 3+ years with an unobstructed view of the sun.

Charging through solar energy harvesting.

Operating Temperature **Minimum:** –40 °C

Range **Typical:** NA

Maximum: 60 °C

NOTE: Barometric pressure and relative humidity sensors operate accurately at a minimum of –40 °C. Alkaline

Other

Compliance EM ISO/IEC 17050:2010 (CE Mark)

Prop 65 warning