

# METOS<sup>®</sup> AOS

ISOBUS

## Application Optimisation System



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# METOS<sup>®</sup> AOS

ISOBUS

## Application Optimisation System

The METOS AOS device is intended to support the farmer or contractor in his plant protection work in real time. The **METOS AOS ISOBUS (Application Optimisation System) is a lightweight unit that can be either mounted on the tractor or sprayer and connects with ISOBUS terminal and mobile phone inside the cabin.** Once activated, **METOS AOS ISOBUS** monitors the spraying weather conditions and logs real-time weather data like temperature, relative humidity, wind speed and direction on the ISOBUS terminal.

Unlike other systems, the METOS AOS **delivers precise near real time data** of the wind conditions and potential drift risk combined with the DeltaT value **directly into the cab of the operator on the display terminal** and at the same time it can be viewed by a farm manager on his mobile app via Bluetooth connection. The METOS AOS lets you make product application decisions based on location specific data. The operator can also input his own spraying parameters into the system and receive notifications when the present conditions are outside these pre-set parameter.

It informs the operator of the sprayer about the actual weather situation. This information is used to adapt driving speed, water amount and nozzle type to the actual vapour pressure deficit (VPD), DeltaT and the wind speed and direction. On sprayers with ISO-Bus Terminal and GNSS receiver the sensor connects via cable to this terminal and displays the actual data for Air Temperature, relative humidity, Delta T, VPD, wind speed and wind direction. If thresholds are over or under a certain threshold it will display warnings and alerts.

If it is used without ISO-Bus terminal it can connect to the mobile phone of the operator and uses the GNSS of the phone to correct speed and direction.

The ISO bus terminal and the mobile APP enabling the data download to document the weather situation during spraying.

## What Is It Used For?



## Simple connection for undisturbed communication



- ① Connects Ultrasonic wind speed sensor to ISOBUS terminal
- ② ISOBUS terminal - communicates with mobile phone via Bluetooth

## Technical specifications

Temperature	-20°C - +60°C / Precision: +- 0.5°C
Relative Humidity	15% - 98% / Precision: +- 3%
Wind Speed	0.4m/s - 40 m/s / Precision: +- 0.2m/s
Wind direction	0° - 360° / Precision: +- 5°
Measurement and communication interval	1 sec
Communication	ISOBUS, CAN-Bus, BLE (Bluetooth Low Energy)



## Why Is This Important?

Legal implications and new legislation have put more on the back of the farmer or spray applicator, having them comply with the application recommendations from the Plant Protection Companies. The risks associated with chemical/pesticide drift are greater than ever as we farm closer to towns, making the need to be more vigilant around spray applications. This can be done with **METOS AOS ISOBUS** by closely monitoring current conditions, logging them securely and permanently and allowing the operator to make more accurate decisions in the field in real time, allowing for better use or varying water rates, forward speed, nozzle types or pressure.

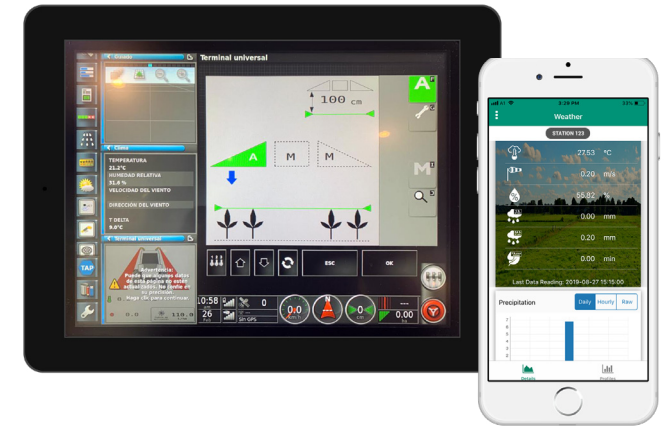
This spray quality assessment (**weather before, during and after the spray**) is very important for all stakeholders (multinationals, farm chemical dealers and farmers) in the whole value chain as process/work control. Close monitoring of chemical/pesticide drift is increasingly important to commercial applicators who need to prove that all applications have been executed with proven state-of-the-art technologies in real time. With **METOS AOS ISOBUS** you can now provide your spray diaries with additional proof of actual in-field weather parameters on the applied fields.

Parameters such as DeltaT, VPD (Vapour Pressure Deficit), Temperature, Relative Humidity and Wind Speed/Direction during application process in extremely precise 1second intervals all irreversibly logged and stamped with GPS location and time. This accurate data helps the spray applicator using chemical/pesticide applications make important decisions on the spot - regarding weather conditions that affect safety, drift, and proper chemical/pesticide applications to help avoid claims and mitigate the risk. In a case of product failure from the chemical/pesticide supplier it gives good evidence that product was correctly applied.

### FEATURES

- **Retrofit possibility to any vehicle and sprayer** - needs only battery/energy from the vehicle
- **Small but rugged design** makes its total setup time only a few minutes and measures the Air Temperature, Relative Humidity, DeltaT, VPD and Wind Speed/Direction precisely.
- Once activated by the user, the METOS AOS **continuously logs your weather parameters** on the ISOBUS Terminal in the tractor.
- The mounting brackets are made of stainless steel, and the plastic parts are made for adverse conditions with a UV-stabilized compact housing that is fully waterproof and fully resistant to chemicals.

- By eliminating all moving parts, the system has very little wear and tear and will be in used for **many years of operation with minimal maintenance costs**.
- The **API interface** is used to send data close to real time into other partner platforms (John Deere Operation Center, Trimble, Topcon, Nevonex...).
- All data is safely stored in FieldClimate and can be combined with data from permanent weather station



### ASSET & MACHINE TRACKING USING MOBILE PHONE

Enhance your work planning, protect your equipment and asset from theft, always know machine's current position and how much it has been running. It is also an easy solution for older sprayers without integrated GPS tracking. Mobile phone becomes an asset tracker as well.



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