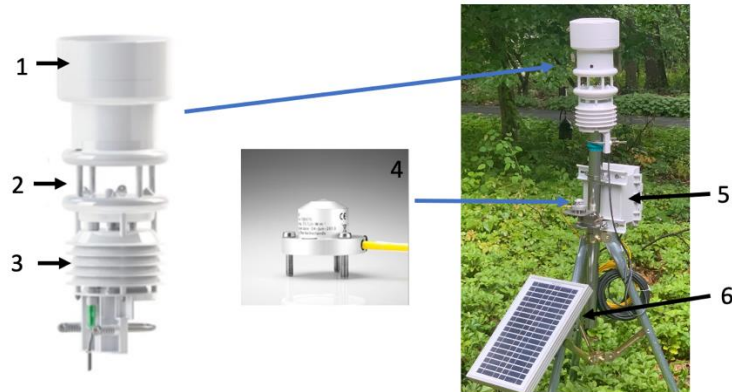


## OttHydro stations

### Instrument

The OTThydromet weather station is research-grade system that combines a [Lufft WS601-UMB](#) weather sensor that measures temperature, humidity, rainfall, and wind speed and direction and a [Kipp & Zonen SP Lite2 Silicon Pyranometer](#) that measures solar radiation.



1	Rain Gauge	Amount of rain
2	Wind Sensor	Speed and Direction of the wind
3	Thermometer - Hydrometer	Temperature and Moisture in the air
4	Light Sensor	Amount of sunlight
5	Data Logger	Stores data and communicates via cell phone
6	Solar Panel	Produces energy for instruments

Measurement accuracies:

Quantity	Measuring range	Accuracy	Resolution
Temperature	-50 ... 60 °C	±0.2 °C (-20...50 °C)	
Relative humidity	0 ... 100 % RH	±2 % RH	
Air pressure	300 ... 1200 hPa	±0.5 hPa (0...40 °C)	
Wind direction	0 ... 359.9 °	< 3°	0.1
Wind speed	0 ... 30 m/s	±0.3 m/s or 3 % RMS	0.1 m/s
Precipitation	Maximum intensity 144 mm/h	±2 %	0.2 mm

## Data Access

The data from OttHydro weather stations are available at <https://host02.adcon.at/secure/>

To log into system use

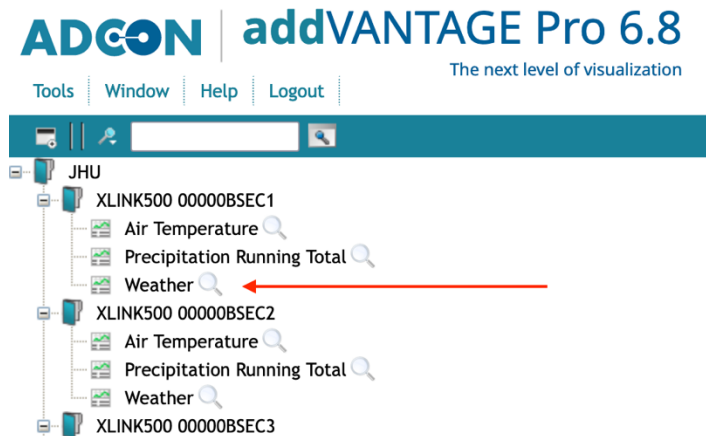
username: jhu\_guest

Password: pwd4guest

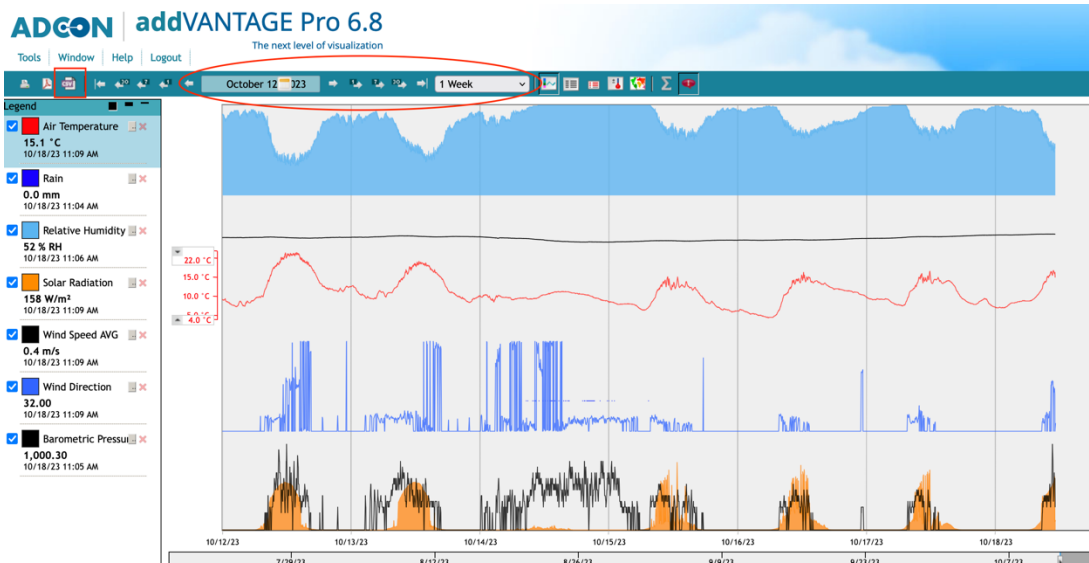
There are 10 BSEC weather stations:

- 1 Morgan State University [MSU]
- 2 Cockeysville (private residence) [COV]
- 3 Liberty Rec & Tech Center [LRT]
- 4 Duncan Street Miracle Garden [DSG]
- 5 Cockeysville — temporary (planning to move to South Baltimore)
- 6 CARE neighborhood (Corner Jefferson and Chester) [CARE]
- 7 Filbert Street Garden [FSG]
- 8 Carrie Murray Nature Center [CMN]
- 9 JHU-Homewood Campus [JHU]
- 10 Roland Park Library [RPL]

To access data from, for example, the MSU station (station 1) use the “XLINK500 00000BSEC1” item. Click on magnifying glass next to Weather and it will produce a page with plots of the different quantities. If only interested in temperature you can click on icon next to “Air Temperature” rather “Weather”.



In the row about the plot you can change start date and time period covered (see ellipse in image below). Also, 3<sup>rd</sup> button will download data as a csv file (see red square in image).



*Full Data Archive:*

The above webpage is rather cumbersome to download the full data record. For this purpose, an archive of all BSEC weather station data (from OttHydro and Ambient Weather stations) is on the Department of Energy’s “MSD-LIVE” site (<https://data.msdlive.org/records/vdhnv-5np29>). This archive will provide an access point for hourly data from all stations, from date of installation up to about a week behind real-time.