

Applications

Hydrology & Meteorology

Transport

Renewable Energy

Air Quality & EHS^[1]



Lufft WS – Smart Weather Sensors

WS Series of professional intelligent All-In-One Weather Stations

WMO-compliant wind gust capability

Radar precipitation enhancement

Improved output rates and accuracy

Wind direction offset

WMO Compliant wind gust capability

Lufft's All-In-One Weather Stations are WMO-compliant devices designed for wind measurement in meteorological observation networks classified under Class A^[2].

Radar precipitation enhancement

Related sensors offer enhanced WMO Present Weather codes (WMO SYNOP 4680 – WAWA Codes). Codes Available: 00, 61, 62, 63, 67, 68, 71, 72, 73, 89.

Improved output rates

Improved sampling and output rates for air temperature, humidity, and air pressure, enabling Class A performance in compliance with the IEC61724-1:2021 standard.

Improved accuracy on all integrated and external connected sensors

The upgraded hardware interface delivers a higher-resolution, temperature-stabilized Analog/Digital connection. This enhancement enables high-performance operation of advanced

sensors, such as the integrated CMP10 Pyranometer in the WS510 and external PT100/PT1000 probes used for measuring surface, solar back panel, or air temperatures.

Wind direction offset

Apply and adjust an off-set to the wind direction, rather than intentionally misaligning sensor during installation. Easily manage the off-set to optimize sensor performance.

Improved Functionality and Enhancements

- SDI-12 protocol Read/Write
- Remote diagnostics
- Additional voltage measurement for heating supply.
- Reliable Product Safety & Protection
 - Automatic heating switch-off when voltage is recorded above specified range
- OTT HydroMet Commitment to long-term support
 - Upgraded WS CPU

^[1] EHS - Environment, health & safety

^[2] WMO - Guide to Instruments and Methods of Observation (2024)

WS Family overview

																	
	WS100	WTB100	WS200	WS300	WS301	WS302	WS310	WS400	WS401	WS500	WS501	WS502	WS510	WS600	WS601	WS700	WS800
Wind Speed			✓							✓	✓	✓	✓	✓	✓	✓	✓
Wind Direction			✓							✓	✓	✓	✓	✓	✓	✓	✓
Wind Gust (WMO-Compliant-3-Sec)			✓							✓	✓	✓	✓	✓	✓	✓	✓
Temperature				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Relative Humidity				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Barometric Pressure				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Precipitation Quantity	✓	✓						✓	✓						✓	✓	✓
Precipitation Type (non-qualified liquid & solid)	✓							✓							✓		✓
Precipitation Type (sleet, freezing, hail)	✓																
Precipitation Intensity	✓	✓						✓	✓						✓	✓	✓
Doppler Radar Precipitation Measurment Technology	✓							✓							✓		✓
Tipping Bucket Precipitation Measurment Technology		✓							✓						✓		
Solar Radiation (Silicon Photocell)						✓						✓				✓	✓
Solar Radiation (Thermopile)					✓		✓				✓		✓				
Lighting Strike Detection																	✓
Ext. Precipitation / Temperature Sensor Input			✓/✓	✓/✓	✓/✓	✓/✓	✓/✓	-/✓	-/✓	✓/✓	✓/✓	✓/✓	✓/✓	-/✓	-/✓	-/✓	-/✓
Analog Output	✓																

Better Services

Lufft WS devices are protected by a limited factory warranty for two years from shipment against manufacturing defects. OTT HydroMet offers an extension of this warranty at the time of purchase to a total of three, four, or five years of coverage. For complete peace-of-mind, OTT also offers a premium warranty covering equipment from unexpected events such as lightning, power surges, vandalism or other accidental damage.



Learn more:



New WS Family



WS Family on
OTTHydroMet.com