


Building Automation

Revolution

The All-in-One Weather Sensor WS10 covers 10 parameters simultaneously. It‘s particularly suitable for building automation, smart city applications and solar rooftops.

THOMSON
ENVIRONMENTAL SYSTEMS
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Lufft

Lufft WS10 – temperature, relative humidity, air pressure, wind, precipitation and radiation

From the WS product family of professional and intelligent measuring transducers with WiFi and RS485 interface.

Measured parameters:

- air temperature
- relative humidity
- air pressure
- wind velocity
- wind direction
- precipitation amount, intensity and type
- UV index
- sun direction
- brightness and twilight
- global radiation

The multiparameter weather sensor WS10 is especially suitable for the building automation. Thanks to its integrated compass, digital interfaces and open protocols, it's easy to integrate.

Lufft WS10-UMB smart weather sensor			Order No.
Product			**8368.WS10P**
Casing	Dimensions	13 x 145 x 227 mm	
	Weight	0.5 kg	
	Heating	20 VA @ 24 VDC	
	Protection class	IP67	
Electrical parameters	Input voltage range	9-36 VDC	
	Power consumption (without dome heating)	120 mA (at still air @24V) 360 mA (from ~7 m/s wind @24V)	
	Dome heating	24VA @ 24VDC	
	Max. input power	32.5VA @ 24VDC	
Envrionmental conditions	Permissible rel. humidity	0 ... 100%	
	Permissible operating temperature	-40 ... +60°C / -40 ... +140°F	
Communication	Interfaces	RS485, 2-wire, half-duplex; WLAN (2.4 GHz; 802.11b/g/n	
	Protocols	Modbus, UMB, UMB ASCII 2.0	
Compass	Measurement range	360 °	
	Accuracy	± 10 %	
GPS	Accuracy	±5m (50% CEP)	
Temperature	Principle	PTC	
	Measurement range	-40 ... +60°C / -40 ... 140°F	
	Accuracy	±1.0°C (@ +5 ... +60°C), otherwise <±2.0°C	
Relative humidity	Principle	Capacitive	
	Measurement range	0 ... 100 % RH	
	Accuracy	±5% (at 20 °C and <80 % rH)	
Precipitation (liquid)	Principle	Doppler Radar	
	Measurement range	0 ... 100mm/h	
	Accuracy	20% under laborary conditions	
Precipit. type	Parameter	Rain, snow, sleet, freezing rain, hail	
Global radiation	Principle	Silicon pyranometer	
	Measurement range	0 ... 1500 W/ m²	
	Accuracy	10% or @ ±120 W/m², the greater value applies	
Sun direction	Principle	Calculated	
UVA / UVB index	Principle	Silicon pyranometer	
	Measurement range	0 … 15 UV index	
Brightness (ambient light sensor)	Principle	Silicon pyranometer	
	Measurement range	0 … 160 klx	
	Accuracy	±5% of the measured value	
Twilight	Principle	Silicon pyranometer	
	Measurement range	0 ... 500 lx	
	Accuracy	±10 lx	
Air pressure	Principle	Capacitive	
	Measurement range	300 … 1100 hPa	
	Accuracy	±0.5 hPa (@ room temp. 25 °C / 77 °F)	
Wind direction	Principle	Thermal	
	Measurement range	0…359.9 °	
	Accuracy	±10 °	
Wind velocity	Principle	Thermal	
	Measurement range	0 … 40m/s (0 ... 90 mph)	
	Accuracy	±1 m/s (2.2 mph) or 5%, the greater value applies	
Accessories	All-round fixture		**8368.WH1**

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All in One Sensor

Maintenance-free measurement principle

Open communication protocols:

- UMB
- Modbus (via RS485)
- ASCII2

Automatic alignment using built-in compass.

Subject to technical modifications, 2018-02-19